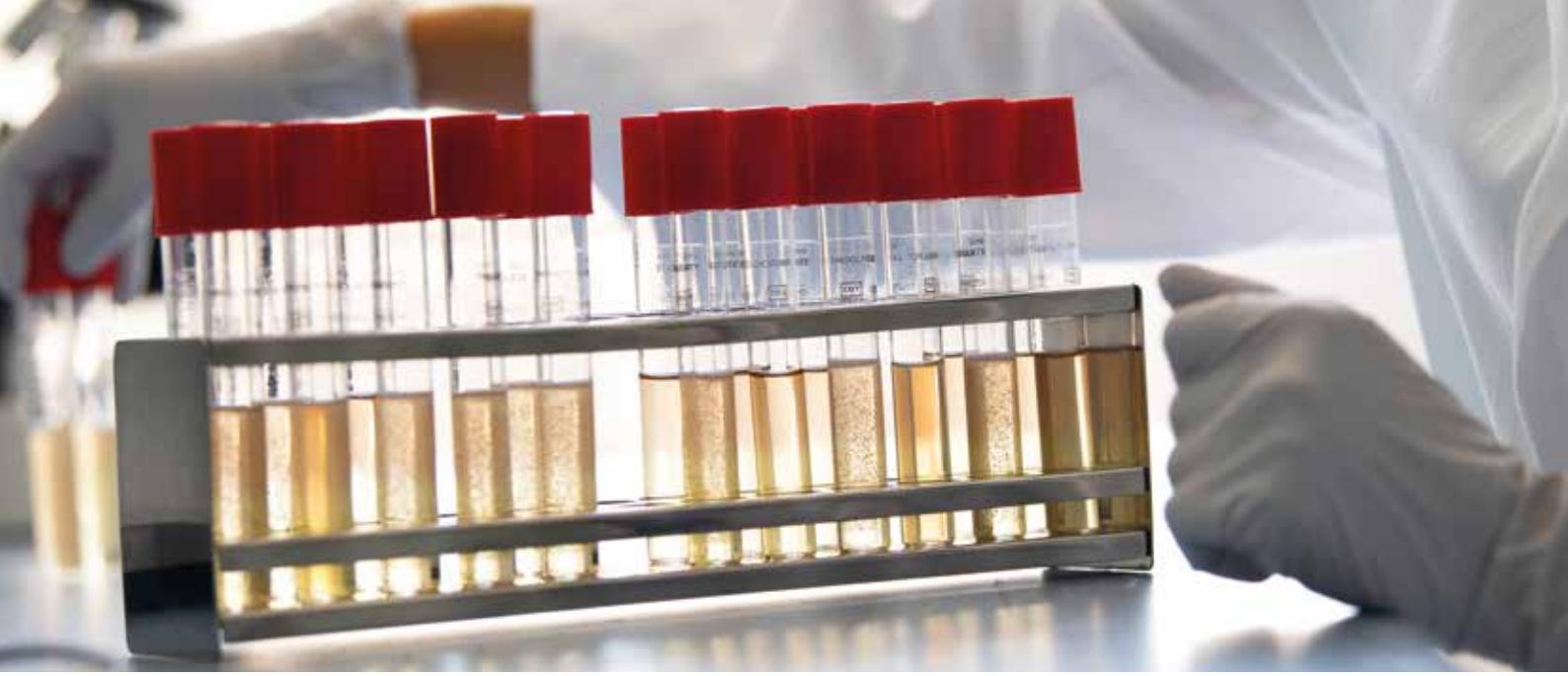




INVAC laboratory diagnostics and vaccines

List of services



More than 25 years of expertise

Personalized approaches to animal health

INVAC combines innovative laboratory diagnostics with the individual production of autogenous vaccines. This unique concept was launched by our founders more than 25 years ago.

As an owner-managed company, we continue to live this idea today. Our team of dedicated biologists and veterinarians is taking it to the next level with scientific passion, modern technology and continuous research.

What drives us?

Animal health that is concrete, individual and focused on the future.

With our own locations in Germany and Poland, state-of-the-art laboratories and a strong network of distribution partners and partner laboratories in many European Union countries, we are ideally positioned internationally. This close cooperation enables rapid exchange across borders and delivers solutions that are perfectly adapted to your practice and your animals. In this way, modern animal health becomes feasible, reliable, tailor-made and sustainably effective.

Our strengths – more than standard:

- **Reliable diagnostics:** Fast and accurate pathogen identification – the basis of any targeted vaccination strategy.
Infection diagnostics, food and feed analysis, microbiome analysis.
- **Experts in cultivation & isolation:**
Rare or sensitive germs? With experience and state-of-the-art technology, we consistently isolate even challenging pathogens.
- **Customised vaccines for your livestock:**
Every herd is different – and so are our vaccines: tailor-made, highly compatible, effective. For all farm animals as well as pets and zoo animals.
- **Your strain archive – secure and available at all times:** We archive your pathogen strains so that they can be used optimally in your vaccines – with systematic comparison of our strain archive for each new diagnosis.
- **Quality control at the highest level:**
With MALDI-TOF, we deliver fast, accurate and reliable results.
- **Your personal customer login:** diagnoses, vaccine data, archive information – digital, secure, transparent.
- **Additional services that make the difference:** hygiene assessment, efficacy studies, vaccination advice, express sample collection if required, and much more.



Working together
to improve animal health



Autogenous vaccines

Less antibiotics, more animal welfare

We offer more than standard vaccines. We deliver individualised solutions for your livestock. The focus is on what matters locally. With our autogenous vaccines, we develop targeted protection strategies for farm animals such as poultry, pigs, cattle, sheep, goats and fish, as well as for pets and zoo animals.

Each vaccine is based on current pathogen detection from the herd and is compared with our comprehensive strain archive. This results in a precisely personalised vaccine that is individual, effective and practical.

INVAC holds a comprehensive manufacturing licence for all relevant bacterial and viral pathogens. Up to six antigens, including bacteria, viruses or toxoids, can be flexibly combined and specifically adapted to typical pathogen constellations.

Close cooperation with veterinarians, our microbiological expertise and modern production processes make it possible to create individual vaccines that protect reliably, tolerably and sustainably.



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Service catalogue | Autogenous vaccines – practical selection



Species	Typical combinations	Description
 Pig	Suction piglet enteritis (maternity protection): Clostridium perfringens, Escherichia coli, rotavirus	Maternal vaccination against sucking piglet enteritis complex established; targeted pathogen selection using diagnostics increases efficiency
	Fattening pigs: Actinobacillus pleuropneumoniae, Glaesserella parasuis, Streptococcus suis, Brachyspira spp.	Weaned piglets are exposed without maternal antibodies; vaccines typically contain 2–4 respiratory pathogens, possibly supplemented by Brachyspira or Clostridia
 Cattle & small ruminants	Toxin infections, enteritis: Clostridium perfringens, Clostridium sporogenes, Paeniclostridium sordellii, Escherichia coli, rotavirus	Increasing diversity of Clostridium diseases; toxoid antigens ensure immune protection, E. coli and rotaviruses can be combined
	Respiratory tract infections: Pasteurella multocida, Mannheimia haemolytica, Histophilus somni	Respiratory tract infections are relevant; combination vaccines with up to 5–6 components are possible, as maternal protection or herd immunisation
 Chicken	Escherichia coli, Pasteurella multocida, Erysipelothrix rhusiopathiae	Typical pathogens in conventional, free-range and organic farming; other pathogens, such as Campylobacter or Mycoplasma, are possible; oil or gel adjuvants ensure long-lasting immune protection
 Turkey	Ornithobacterium rhinotracheale, Bordetella bronchiseptica, reovirus, Staphylococcus aureus	ORT is a turkey-specific key pathogen; vaccines combine ORT with other relevant pathogens, such as Bordetella or reoviruses; modern oil adjuvants are used
 Waterfowl	Riemerella anatipestifer, Enterococcus cecorum, parvovirus	Riemerella and, currently, parvoviruses are problematic pathogens; vaccinations combine these with other pathogens, especially in parent ducks and fattening geese. The vaccination schedule should be adapted to the specific situation on the farm
 Fish	Yersinia ruckeri, Aeromonas salmonicida, Flavobacterium spp.	Use of monovalent or combination vaccines
 Rabbit	Clostridium perfringens, Pasteurella multocida, Bordetella bronchiseptica	Use of monovalent or combination vaccines
 zoo animals	Clostridium perfringens, Escherichia coli, Yersinia pseudotuberculosis	Use of monovalent or combination vaccines



INVAC – Your laboratory partner Effective diagnostics

High-performance veterinary diagnostics are the heart of our work. In the INVAC laboratories, biologists and veterinarians work together on an interdisciplinary basis with a high level of technical expertise, a clear view of practical applications and the aim of detecting infections quickly and reliably.

Thanks to our close cooperation with veterinarians and animal owners, we are familiar with the challenges on site and consistently gear our analyses towards them. We use modern microbiological methods and powerful technologies such as MALDI-TOF mass spectrometry, qPCRs and next-generation sequencing, which deliver reliable results in the shortest possible time, even with the smallest sample quantities.

Speed is crucial here: in suspected cases, we collect samples by express delivery on request so that appropriate measures can be taken quickly.



Article No.	Bacteriological examination	Sample material
40115	Anaerobic diagnostics incl. strict anaerobes	Faeces, claws, punch samples, punctates
40014	Animal carcasses: chickens, ducks, suckling piglet, abortion section incl. identification typing of relevant pathogens, carcass disposal	Animal carcass
40015	Animal carcasses: weaners/fattening pigs, small ruminant section incl. identification typing of relevant pathogens, carcass disposal	Animal carcasses up to 40kg
40035	Animal feed quantitative and qualitative bacteriological examination incl. Clostridia	Animal feed
40114	Animal feed qualitative bacteriological examination incl. Clostridia	Animal feed
44105	Drinking water quantitative and qualitative bacteriological examination	Drinking water
40004	Faecal sample incl. identification typing of relevant pathogens	Faeces
40001	MALDI - TOF - Mass spectrometry pathogen differentiation of cultures	Culture, swab with maintenance medium
44110	MALDI - TOF - Mass spectrometry cluster analysis of 10 isolates	Culture, swab with maintenance medium
40005	Organ sample incl. identification typing of relevant pathogens	Organs, organ sections
40003	Swab sample incl. identification typing of relevant pathogens	Organ swab, faecal swab, nasal swab
40010	Swab sample, faeces or organ sample without strain typing and storage	Swab with maintenance medium, faeces, organ



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Diagnostic services | General



Article No.	Cultural detection of specific pathogens	Sample material
40017	Cultivation of Brachyspira spp. not included in general bacteriological examination, incl. PCR detection	Organs, faeces, swab with maintenance medium, animal carcasses
40024	Cultivation of Campylobacter spp. not included in general bacteriological examination	Organs, faeces, swab with maintenance medium, animal carcasses
44108	Cultivation of Clostridia spp. without general bacteriological examination	Organs, faeces, swab with maintenance medium, animal carcasses
40036	Cultivation of Mycoplasma spp. not included in general bacteriological examination, incl. PCR detection	Organs, faeces, swab with maintenance medium, animal carcasses
40025	Cultivation of Salmonella via enrichment by PCR after pre-enrichment and cultural detection; by triple enrichment, not included in general bacteriological examination	Organs, faeces, swab with maintenance medium, animal carcasses



Article No.	Susceptibility tests	Sample material
44106	Extended-Spectrum-Betalaktamasen (ESBL)	Isolate
40008	Resistance test per Isolate (antibiogram)	Isolate
40016	Resistance test per Isolate (short antibiogramm)	Isolate



Article No.	Pathological examination	Sample material
44113	Diagnostic sampling: juvenile for virological examination, carcass disposal	Animals <7th day of life, stayers
44114	Diagnostic sampling: chickens, ducks, suckling piglet, abortion for virological examination, carcass disposal	Animal carcass



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Diagnostic services | General



Article No.	Pathogen typing, serotyping	Sample material
40027	Clostridioides difficile (former Clostridium difficile) toxin A and B by PCR	Isolate
40122	Erysipelothrix rhusiopathiae serotype 1a, 1b, 2, 4 and 5 by PCR	Isolate
40029	Escherichia coli serotyping by agglutination	Isolate
44107	Mannheimia haemolytica serotype A1, A2, A6, A8, A9 and A12 by PCR	Isolate
40121	Pasteurella multocida capsule serotype A, B, D, E, F and dermonecrotic toxin by PCR	Isolate
40031	Salmonella enterica subsp. enterica serotyping according to Kaufmann-White scheme	Isolate



Article No.	Mycological examination	Sample material
40009	Cultivation and identification of yeasts and moulds	Swabs with maintenance medium, faeces, milk, organs, animal carcasses, animal feed



Article No.	Parasitological and virological examination	Sample material
40007	Detection of worm eggs, Coccidia and Cryptosporidia	Faeces, intestines, animal carcass
44109	Rotaviruses, coronaviruses and Cryptosporidia rapid test	Faeces



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Diagnostic services | General



Article No.	Pathogen typing, serotyping	Sample material
40027	Clostridioides difficile (former Clostridium difficile) toxin A and B by PCR	Isolate
40122	Erysipelothrix rhusiopathiae serotype 1a, 1b, 2, 4 and 5 by PCR	Isolate
40029	Escherichia coli serotyping by agglutination	Isolate
44107	Mannheimia haemolytica serotype A1, A2, A6, A8, A9 and A12 by PCR	Isolate
40121	Pasteurella multocida capsule serotype A, B, D, E, F and dermonecrotic toxin by PCR	Isolate
40031	Salmonella enterica subsp. enterica serotyping according to Kaufmann-White scheme	Isolate



Article No.	Mycological examination	Sample material
40009	Cultivation and identification of yeasts and moulds	Swabs with maintenance medium, faeces, milk, organs, animal carcasses, animal feed



Article No.	Parasitological and virological examination	Sample material
40007	Detection of worm eggs, Coccidia and Cryptosporidia	Faeces, intestines, animal carcass
44109	Rotaviruses, coronaviruses and Cryptosporidia rapid test	Faeces



Article No.	PCR examination	Sample material
40104	Abortion panel Anaplasma marginale, Anaplasma phagocytophilum, Coxiella burnetii, Chlamydophila abortus, Campylobacter fetus, Neospora caninum, Leptospira spp., Listeria monocytogenes, Salmonella spp. by qPCR	Vaginal swab, placental swab, cervical swab, abortion material/abort
44074	Bluetongue disease (BTV)	Blood (EDTA/serum), organs
44075	Bovine parainfluenza 3 virus (PI3)	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
44112	Bovine papillomavirus	Tumor tissue
44076	Bovine respiratory syncytial virus (BRSV)	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
40105	Bovine viral diarrhoea virus (BVD)	Blood or blood serum, anal swab, faecal swab, swab without maintenance medium, organ samples, faeces, milk
40106	Bovine viral diarrhoea virus and infectious Bovine rhinotracheitis gE (BVD, IBRgE)	Semen, cervical swab, swab without maintenance medium or organ samples from brain, liver, lung, spleen
40107	Chlamydia spp.	Swab without maintenance medium or organ samples
40108	Claw panel Treponema spp., Fusobacterium necrophorum, Dichelobacter nodosus	Biopsy, tissue sample, claw swab
44077	Coronavirus	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue



Article No.	PCR examination	Sample material
44078	<i>Histophilus somni</i>	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
44079	Infectious bovine rhinotracheitis	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
44080	<i>Listeria monocytogenes</i>	Vaginal, placental or cervical swab, milk
44081	<i>Mannheimia haemolytica</i>	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
40109	Mastitis panel Corynebacterium bovis, Enterococcus spp., Escherichia coli, yeasts, Klebsiella pneumoniae, Mycoplasmopsis bovis, Mycoplasma spp., Prototheca spp., Serratia marcescens, Staphylococcus aureus, Streptococcus agalactiae, Streptococcus dysgalactiae, Streptococcus uberis, Trueperella pyogenes	Milk, tank milk
40110	<i>Mycobacterium avium</i> spp. <i>paratuberculosis</i>	Faeces
44082	Mycoplasma multiplex-PCR Mycoplasmopsis bovis, Mesomycoplasma dispar, Mycoplasmopsis bovirhinis (formerly Mycoplasma)	Swab without maintenance medium, tissue and organ samples, saliva, bronchoalveolar lavage (BAL)
44083	<i>Pasteurella multocida</i> capsule serotype and dermonecrotic toxin by qPCR	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue, milk
40111	Q-Fever <i>Coxiella burnetii</i>	Vaginal swab, placental swab, cervical swab, vaginal mucus, amniotic fluid, placenta, foetal tissue



Article No.	PCR examination	Sample material
40112	Respiratory panel Bovine coronavirus, Bovine respiratory syncytial virus, Bovine parainfluenza virus group 3, Mannheimia haemolytica, Mycoplasmopsis (formerly Mycoplasma) bovis, Histophilus somni, Pasteurella multocida by qPCR	Nasal swab, bronchus swab, tracheal swab, lung fluid, lung tissue
44084	Rotavirus group A quantitative determination by qPCR	Anal swab, faecal swab, intestinal section, lymph nodes, faeces
40113	Salmonella spp.	Feed, sock swab sample, anal swab, faecal swab, faeces



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
44085	Abortion panel Bovine herpesvirus 4, Coxiella burnetii, Leptospira spp., Neospora caninum, Salmonella spp.	Blood or blood serum without additives
44086	Bluetongue disease (BTV)	Blood or blood serum without additives
44087	Bovine leukemia (BLV)	Blood or blood serum without additives
44088	Bovine parainfluenza 3 virus (PI3)	Blood or blood serum without additives
40091	Bovine respiratory syncytial virus (BRSV)	Blood or blood serum without additives
40088	Bovine viral diarrhoea: antigen (BVD AG)	Serum, swab without maintenance medium



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
40089	Bovine viral diarrhoea: antibody (BVD AK) incl. p80 and NS3	Blood or blood serum without additives, milk
40090	Bovine viral diarrhoea: antibody in milk (BVD AK) incl. NS3	Blood or blood serum without additives, milk
40092	Brown stomach worm Ostertagia ostertagi	Milk
40093	Chlamydia spp.	Blood or blood serum without additives
44089	Clostridium perfringens alphatoxin antibodies	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
44090	Clostridium perfringens alphatoxin antigen	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
40095	Clostridium perfringens toxins determination of beta-, epsilon- and tetatoxine antigens	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
44091	Coronavirus	Blood or blood serum without additives
40094	Diarrhoea panel rotaviruses, coronaviruses, Cryptosporidia, Escherichia coli K99	Faeces, organs
44092	Enterotoxemia antigen detection of alpha-, beta- and epsilon toxin	Culture supernatants, intestinal contents, pericardial- or peritoneal fluid
44093	Fasciola hepatica antigen	Faeces
44094	Fasciola hepatica antibody	Blood or blood serum without additives



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
40096	Infectious bovine rhinotracheitis: gB antibodies (IBRgB)	Blood or blood serum without additives, milk
40097	Infectious bovine rhinotracheitis: gE antibodies (IBRgE)	Blood or blood serum without additives, milk
40098	Mannheimia haemolytica	Blood or blood serum without additives
40099	Mycobacterium avium subsp. paratuberculosis	Blood or blood serum without additives
44095	Mycoplasmopsis bovis (formerly Mycoplasma)	Blood or blood serum without additives
40100	Neospora caninum	Blood or blood serum without additives
40101	Q-Fever <i>Coxiella burnetii</i>	Blood or blood serum without additives
40102	Respiratory panel Bovine viral diarrhoea (BVD), Infectious bovine rhinotracheitis (IBR), Bovine respiratory syncytial virus (BRSV), Parainfluenza virus group 3 (PI3), Mycoplasmopsis bovis	Blood or blood serum without additives
44096	Salmonella enterica subsp. enterica serovar Dublin	Blood or blood serum without additives



Article No.	Pathogen typing by PCR examination	Sample material
40026	Actinobacillus pleuropneumoniae (APP)	Isolate
44015	Clostridium perfringens toxin profile type A, B, C, D, E, F, G incl. cpb2 and quantitative determination of alphatoxin	Isolate
44016	Escherichia coli virulence factors STb, STaP, K99, LTb, F18, 987P, K88, F41 and Stx2e by Bosworth-PCR	Isolate
44017	Glaesserella parasuis (serotype)	Isolate
40116	Pasteurella multocida capsule serotype and dermonecrotic toxin	Isolate
40118	Staphylococcus hyicus/sciuri exfoliative toxin genes exhA, exhB, exhC, exhD	Isolate
40119	Streptococcus suis virulence profile (sly, mrp and epf) and serotyping (cps1, cps2, cps3, cps7, cps9, cps11 and cps16)	Isolate



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Diagnostic services | Pig



Article No.	PCR examination	Sample material
40022	Brachyspira, Lawsonia multiplex-PCR incl. quantification Brachyspira hyodysenteriae, Brachyspira pilosicoli and Lawsonia intracellularis	Anal swab, faecal swab, intestinal section, faeces
40046	Influenza A quantitative determination	Nasal swab, bronchus swab, lung tissue, trachea, bronchoalveolar lavage (BAL)
44018	Influenza A subtype H1 pdm (pandemic strain)	Nasal swab, bronchus swab, lung tissue, trachea, bronchoalveolar lavage (BAL)
44019	Influenza A subtype H1N1 (swine influenza)	Nasal swab, bronchus swab, lung tissue, trachea, bronchoalveolar lavage (BAL)
44020	Influenza A subtype H3N2	Nasal swab, bronchus swab, lung tissue, trachea, bronchoalveolar lavage (BAL)
44021	Influenza A multiplex-PCR subtypes H1 pdm, H1, H3, N1 and N2	Nasal swab, bronchus swab, lung tissue, trachea, bronchoalveolar lavage (BAL)
44022	Mesomycoplasma hyopneumoniae (formerly Mycoplasma hyopneumoniae)	Nasal swab, lung tissue, pleura tissue, bronchoalveolar lavage (BAL)
44023	Metamycoplasma hyosynoviae and Mesomycoplasma hyorhinis multiplex-qPCR (formerly Mycoplasma)	Nasal swab, lung tissue, pleural tissue, bronchoalveolar lavage (BAL), synovia
40023	Mycoplasma spp.	Swab without maintenance medium, tissue and organ samples, saliva, bronchoalveolar lavage (BAL)



Article No.	PCR examination	Sample material
40020	Porcines circovirus (PVC-2) multiplex-PCR type 2a, 2b and 2d	Swabs without maintenance medium, tissue and organ samples, saliva, bronchoalveolar lavage (BAL)
44024	Porcine epidemic diarharr virus (PEDV) quantitative determination by qPCR	Anal swab, faecal swab, intestinal section, lymph nodes, faeces
40047	Porcine reproductive and respiratory syndrome virus multiplex PCR PRRSV-1 and PRRSV-2 differentiation of the European and North American genotype incl. quantification	Nasal swab, bronchial swab, tissue from the lungs, appendix, placenta, uterus, bronchoalveolar lavage (BAL), saliva, blood, serum, semen, culture material, culture supernatant
40045	Respiratory screening multiplex-PCR: Mesomycoplasma hyopneumoniae (formerly Mycoplasma hyopneumoniae), Glaesserella parasuis, Actinobacillus pleuropneumoniae	Nasal swab, bronchial swab, tracheal swab, lung tissue
40049	Rotavirus group A quantitative determination by qPCR	Anal swab, faecal swab, intestinal section, lymph nodes, faeces
44025	Rotavirus group B and C multiplex-PCR quantitative determination by qPCR	Anal swab, faecal swab, intestinal section, lymph nodes, faeces
40048	Salmonella spp.	Feed, sock swab sample, drinking water, anal swab, faecal swab, organ samples, faeces, milk
44026	Teschovirus Teschien-Talfan-disease	CNS samples, anal swab, void swab, intestinal section, faeces



Article No.	Virus isolation	Sample material
40120	Porcine rotavirus group A (RVA)	Faeces, intestinal sections, animal carcasses (preferably fresh and/or frozen)



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
40038	Actinobacillus pleuropneumoniae: Apx IV antibodies after field infection	Blood or blood serum without additives
44027	Actinobacillus pleuropneumoniae: OmpA antibodies after field infection and vaccination	Blood or blood serum without additives
44028	Clostridium perfringens: alphatoxin antibodies	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
44029	Clostridium perfringens: alphatoxin antigen	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
40039	Clostridium perfringens toxins determination of beta-, epsilon-and tetatoxine antigens	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid



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Diagnostic services | Pig



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
40040	Glaesserella parasuis	Blood or blood serum without additives
44031	Influenza A	Blood or blood serum without additives
44030	Lawsonia intracellularis porcine intestinal adenomatosis (PIA)	Blood or blood serum without additives
40041	Mesomycoplasma hyopneumoniae (former Mycoplasma hyopneumoniae)	Blood or blood serum without additives
40042	Porcine circovirus type 2: antigen PCV-2	Blood or blood serum without additives
40043	Porcine circovirus type 2 : antibodies IgM/IgG PCV-2	Blood or blood serum without additives
40044	Porcine reproductive and respiratory syndrome virus PRRSV	Blood or blood serum without additives



Article No.	Bacteriological examination	Sample material
40013	Carcasses: juvenile section incl. identification typing of relevant pathogens, carcass disposal	Animals <7th day of life, stayers
40127	Head bacteriological examination of brain and nasal sinus, carcass disposal	Heads



Article No.	Pathogen typing, serotyping	Sample material
44033	Clostridium perfringens toxin profile type A, B, C, D, E, F, G incl. cpb2 by PCR and quantitative determination of alphatoxin	Isolate
40123	Escherichia coli virulence factors astA, iss, irp2, papc, iucD, tsh, vat, cvi/cva by APEC-PCR	Isolate
40087	Riemerella anatipestifer serotyping by agglutination	Isolate



Article No.	PCR examination	Sample material
40070	Avian metapneumovirus type A and type B turkey rhinotracheitis virus (TRT) / swollen head syndrome (SHS)	Swab without maintenance medium or organ samples from trachea, lungs, fallopian tubes
40071	Avian metapneumovirus type C by qPCR	Swab without maintenance medium or organ samples from trachea, lungs, fallopian tubes
40072	Avian metapneumovirus type D by qPCR	Swab without maintenance medium or organ samples from trachea, lungs, fallopian tubes
44036	Avian metapneumovirus multiplex-PCR type A, B, C and D	Swab without maintenance medium or organ samples from trachea, lungs, fallopian tubes
44037	Avian nephritis virus (ANV) quantitative determination by qPCR	Kidney or intestinal content samples
40073	Avian reovirus (Reo) quantitative determination by qPCR	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from the intestine
44038	Avian reovirus (Reo) incl. S1133-like strains	Swab without maintenance medium from tissues or organs ,from joints, liver, intestines, isolates
40067	Avian turkey reovirus (Reo) quantitative determination by qPCR	Swab without maintenance medium from tissues or organs ,from joints, liver, intestines, isolates



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Diagnostic services | Poultry



Article No.	PCR examination	Sample material
40074	Avibacterium paragallinarum pathogen of Coryza contagiosa, quantitative determination by qPCR	Swab without maintenance medium and exudates from the infraorbital sinus, trachea, lungs and air sac
44040	Bordetella avium bordetellosis	Swab without maintenance medium or organ samples from trachea, lungs
44039	Brachyspira spp. quantitative determination by qPCR	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from the intestine
40075	Campylobacter jejuni, Campylobacter coli and Campylobacter lari quantitative determination by qPCR	Swab without maintenance medium or organ samples of intestine, liver, bile, faeces, faecal matter, environmental samples, sock swab sample
44044	Chicken astrovirus (CAstV) type A and type B quantitative determination by qPCR	Cloacal swab without maintenance medium, caecal tonsils
44041	Duck circovirus (DuCV) quantitative determination by qPCR	Faeces, caecal tonsils, spleen, intestine, swab Bursa fabricii
44042	Enterococcus cecorum	Organs, bone (marrow)
40069	Fowl adenovirus (FAdV) quantitative determination by qPCR	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from liver, kidney, appendix
44034	Fowl adenovirus (FAdV) serotypes C4, E8 and D11 by qPCR	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from liver, kidney, appendix



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Article No.	PCR examination	Sample material
44043	Haemoragic enteritis virus (HEV)	Cloacal swab without maintenance medium , caecal tonsils
40077	Histomonas meleagridis quantitative determination by qPCR	Swab without maintenance medium, tissue and organs, environmental samples
44035	Infectious bronchitis (IBV) incl. turkey coronavirus quantitative determination by qPCR	Cloacal swab without maintenance medium , caecal tonsils
40078	Infectious bronchitis (IBV) serotypes 793B, H120, D274 and variant-2 (Israeli)	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
40079	Infectious bronchitis (IBV) serotype 793B	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
40081	Infectious bronchitis (IBV) serotype QX	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
40080	Infectious bronchitis (IBV) serotype variant-2 (Israeli)	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
44045	Infectious bronchitis (IBV) serotype 181	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
40082	Infectious bursitis disease (IBD) genogroup A3 (very virulent)	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix



Article No.	PCR examination	Sample material
44046	Infectious laryngotracheitis (ILT)	Swab without maintenance medium or organ samples from trachea, lung, kidney, appendix
40083	Influenza A quantitative determination by qPCR	Nasal swab, bronchus swab, lung tissue, trachea
44047	Influenza A multiplex-PCR subtypes H5, H7 and H9	Nasal swab, bronchus swab, lung tissue, trachea
42013	Intestinal virus package rotavirus A/D, avian reovirus, turkey viral hepatitis virus, turkey astrovirus	Faeces, caecal tonsils
44048	Listeria monocytogenes	Organ samples
44053	Malacoplasma iowae (formerly Mycoplasma)	Tissues and organs (lung, trachea), swab samples without maintenance medium (nasal, cloacal, tracheal, lung, conjunctiva, air sacs)
44050	Marek disease virus (MDV) by Rispens DIVA	Dust, tumor tissue, tissue from cavities, skin or organ sample from spleen, kidneys
44051	Marek disease virus (MDV) and the turkey herpes virus (HVT) by Rispens DIVA	Dust, tumor tissue, tissue from cavities, skin or organ sample from spleen, kidneys
44052	Mycoplasma spp. quantitative determination by qPCR	Swab without maintenance medium, tissue and organ samples, saliva, bronchoalveolar lavage (BAL)
44049	Mycoplasmosis synoviae differentiation between inoculation strain and field strain	Swab samples, isolates, tissue and organ samples from lung, trachea, caecal tonsils



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Diagnostic services | Poultry



Article No.	PCR examination	Sample material
40084	Mycoplasmopsis synoviae and Mycoplasmoides gallisepticum (formerly Mycoplasma) quantitative determination by qPCR	Swab without maintenance medium and exudates from the infraorbital sinus, trachea, lungs and air sac, joints
40076	Newcastle disease pathogen (NDV) with pathotyping	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from liver, kidney, spleen, appendix
40085	Ornithobacterium rhinotracheale quantitative determination by qPCR	Swab without maintenance medium and exudates from the infraorbital sinus, trachea, lungs and air sac
44054	Parvovirus quantitative determination by qPCR	Organ samples, cecal tonsils
44056	Riemerella anatipestifer quantitative determination by qPCR	Swab samples and/or altered organs
44057	Riemerella anatipestifer incl. identification quantitative determination by qPCR	Swab samples and/or altered organs
44058	Rotavirus A and D quantitative determination by qPCR	Cloacal swab, faecal swab, swab without maintenance medium or organ sample from the intestine
40086	Salmonella spp.	Feed, sock swab sample, cloacal swab, faecal swabs, faeces
44059	Salmonella enterica subsp. enterica Serovar Infantis	Feed, sock swab sample, cloacal swab, faecal swabs, faeces
44060	Salmonella enterica subsp. enterica Serovar Enteritidis and Typhimurium	Feed, sock swab sample, cloacal swab, faecal swabs, faeces



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Diagnostic services | Poultry



Article No.	PCR examination	Sample material
44055	Turkey astrovirus (TAstV) type 1 and 2 quantitative determination by qPCR	Organ samples, cecal tonsils
44061	Turkey hepatitis virus (THV) quantitative determination by qPCR	Organ samples, cecal tonsils



Article No.	Parasitological examination	Sample material
44032	Microscopic examination of three intestinal sections	Intestine



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Diagnostic services | Poultry



Article No.	Virus isolation	Sample material
40124	Adenovirus (FAdV)	Organ material by arrangement
40125	Avian reovirus (Reo)	Organ material by arrangement
44063	Duck circovirus	Organ material by arrangement
44062	Parvovirus (waterfowl)	Organ material by arrangement



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
40050	Avian encephalomyelitis	Blood or blood serum without additives
40053	Avian metapneumovirus turkey rhinotracheitis virus (TRT) / swollen head syndrome (SHS)	Serum
40052	Avian reovirus (Reo)	Blood or blood serum without additives
40054	Avibirnavirus Infectious bursal disease virus (IBDV)	Blood or blood serum without additives
40056	Chicken anemia virus (CAV)	Blood or blood serum without additives
44064	Clostridium perfringens: alphatoxin antibodies	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid



INVAC International GmbH

Diagnostic services | Poultry



Article No.	Serological examination, detection of antibodies by ELISA	Sample material
44065	Clostridium perfringens: alphatoxin antigen	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
44066	Clostridium perfringens toxins determination of beta-, epsilon-and tetatoxine antigens	Serum, culture supernatants, liquid intestinal contents, pericardial or peritoneal fluid
40068	Infectious bronchitis virus (IBV)	Blood or blood serum without additives
40058	Infectious laryngotracheitis (ILT) Gallid herpesvirus 1	Blood or blood serum without additives
40051	Influenza A	Blood or blood serum without additives
40059	Mycoplasmodies gallisepticum	Blood or blood serum without additives
40060	Mycoplasmopsis synoviae	Blood or blood serum without additives
44068	Mycoplasmodies gallisepticum / Mycoplasmopsis synoviae (combined)	Blood or blood serum without additives
40055	Newcastle disease virus (NDV)	Blood or blood serum without additives
40061	Ornithobacterium rhinotracheale	Blood or blood serum without additives
44069	Pasteurella multocida	Blood or blood serum without additives
44070	Riemerella anatipestifer	Blood or blood serum without additives
44071	Salmonella enterica group D	Blood or blood serum without additives



Autovaccines for individual animals Targeted help for chronic infections

Animal health is close to INVAC's heart and is not a question of herd size. That is why we also develop individual solutions for domestic and zoo animals.

Conventional treatments often reach their limits, especially in the case of chronic recurrent infections. Repeated antibiotic treatments frequently lead to resistance and put a strain on both the animal and the success of the therapy.

INVAC offers a targeted, gentle treatment option with individual vaccines also known as autovaccines. We produce a tailor-made vaccine in the laboratory from the pathogen material of the affected animal. This specifically activates the immune system and can help to curb recurrent infections in the long term in a tolerable and individual way and without unnecessary use of antibiotics.

Whether dogs, cats, horses, rabbits or exotic zoo animals, we take a holistic approach to animal health, even where standard solutions end.



INVAC International GmbH

Service catalogue diagnostics und autovaccines | Domestic and small animals



Article No.	Examination	Sample material
44001	Bacteriological examination if necessary incl. anaerobes	Swab (nasal/anal/faecal/skin), urine, blood, faeces
44003	Bacteriological-mycological examination combined	Swab (nasal/anal/faecal/skin), urine, blood, faeces
44002	Mycological examination	Swab (nasal/anal/faecal/skin), urine, blood, faeces
44004	Parasitological examination Giardia detection	Faeces
44005	Sensitivity testing up to 12 active ingredients by arrangement	Isolate from bacteriological analysis



Article No.	Autovaccine for individual animals	Sample material
20101	Autovaccine up to 3 isolates, 3 vaccine doses	Isolate from bacteriological analysis
20119	Autovaccine for horses up to 3 isolates, 3 vaccine doses	Isolate from bacteriological analysis



Services in Molecular Biology GmbH

Molecular biological analysis and DNA sequencing

INVAC is breaking new ground in infection diagnostics. Together with Services in Molecular Biology GmbH (SMB), we are expanding our range of services to include state-of-the-art molecular biology techniques. These include 16S and 18S sequencing as well as bioinformatic analyses for precise species identification.

On request, we develop customised PCR assays for targeted pathogen diagnostics. Genome and microbiome sequencing are also part of the expanded range of services and open up new possibilities in diagnostic depth.

In addition, the cooperation is resulting in practical solutions for specific issues such as molecular sex determination in birds using feather samples or the detection of specific pathogens in bathing, drainage or drinking water.

Through this collaboration, we are laying the foundation for differentiated, scientifically sound and future-oriented infection diagnostics.



INVAC International GmbH

Service catalogue | Services in Molecular Biology



Article No.	Portfolio	Sample material
44010	16S sequencing and bioinformatic analysis for species identification of prokaryotes	Pure culture of bacterial isolate
44011	18S sequencing and bioinformatic analysis for species identification of yeasts and fungi	Pure culture of yeasts and fungi
44097	Avian reovirus genotyping sequencing of the SigmaC gene	Isolate
44098	Avibacterium paragallinarum cluster analysis	Pure culture of Avibacterium
44099	Brachyspira determination of the species by sequencing the nox gene	Pure culture of Brachyspira
44100	Circovirus genotyping	Virus isolates
44012	Development and validation of PCR assays	After consultation
44101	FAdV genotyping sequencing of the hexon gene	Pure culture of FAdV
44013	Genome sequencing	Pure culture of prokaryote
44014	Microbiome analysis	Swab, faeces, lavage, water sample
44102	Parvovirus cluster analysis of the duck or goose	Parvovirus isolate
44103	Rotavirus A genotyping sequencing of the genes VP4 and VP7	Rotavirus isolate
44104	Sequencing for species and serotyping	Virus isolates, swabs, faeces, lavage, water sample
40037	Sex determination of birds by PCR	Feathers



INVAC International GmbH

Sample collection and dispatch of sampling kits

Article No.	Sample packaging and transport
80005	Sample collection with GO: Express up to 10 kg (please inform us one day in advance)
80006	Sampling kit (2 swabs with maintenance medium, 2 dry swabs for PCR, 2 tubes for faeces and milk)
80009	Sets of 5 swabs with mycoplasma transport medium
80007	Sets of 10 tubes
80008	Sets of 10 swabs

In suspected cases, speed is crucial: on request, we will collect samples by express delivery – so that appropriate measures can be taken quickly. **Simply contact us on +49(0)3327 46595-0.**



**INVAC Diagnostic Request Form
Veterinary Diagnostics | Livestock**

Contact details
Veterinarian
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Owner / Farm
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Report to: Veterinarian Owner/Farm Other*
Other: _____

Date of sampling

Sample material
Carcass Organs Organ swab
Nasal swab Faeces Anal swab
Serum/blood Milk Vaginal/Cervical swab
Isolate of field Other

Please send your order to:
INVAC International GmbH
Marktstraße 1
14542 Werder (Havel)

Type of examination
Bacteriological examination (BE)
 extended with typing and storage in the strain collection for later vaccine
 basic (no identification of relevant pathogens only)
 special BE: enterobacter spp. corynebacter spp.
 Escherichia coli spp. *Leptospira* spp.
 Leuconostoc spp. *Leuconostoc* spp.
 Streptococcus spp.
 pathogen typing
 pathogen differentiation with MALDI
 examination of animal feed quantitative quantitative and qualitative
 Röntgogram

Virological examination
 using a rapid test (enzyme, Combiplate, Cytosensor)
 by PCR (see reverse)
 isolation and cultivation of Rota-, Adeno- or Reovirus
 other: _____

Other
 parasitological examination
 toxicological examination
 ELISA (see reverse)
 other: _____

With my signature I authorise INVAC International GmbH to test the submitted sample material for a fee.
X Place, date, signature

INVAC International GmbH
Marktstraße 1
14542 Werder (Havel)
Fax +49(0)3327 46595-0
Fax +49(0)3327 46595-10
info@invac.eu
www.invac.eu

**INVAC Order Form
Autogenous Vaccines**

Contact details
Veterinarian
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Owner / Farm
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Report to: Veterinarian Owner Other*
Other: _____

Vaccine
Repeat order like batch plus vaccine update

Animal species
Turkey Pig Cattle Sheep
Duck Piglet Calf
Chicken Other

Number of vaccine doses _____ **Quantity in (box)** _____ **Volume per dose** _____

Adjuvants
Oil Other Aluminium hydroxide

Flaschengröße
10 ml 50 ml
100 ml 250 ml 500 ml

Requested delivery date
 For urgent animal health reasons, delivery is required as quickly as possible and, if necessary, before the sterility test has been completed.

Shipping method
 Standard shipping Refrigerated shipping

Remarks

With my signature I authorise INVAC International GmbH to produce an autogenous vaccine for a fee and confirm that no sufficiently effective and authorised vaccine is available for the disease in the above-mentioned livestock.

X Place, date, signature

INVAC International GmbH
Marktstraße 1
14542 Werder (Havel)
Fax +49(0)3327 46595-0
Fax +49(0)3327 46595-10
info@invac.eu
www.invac.eu

**Request form | Order form
Diagnostics + Autovaccines
Companion animals**

Contact details
Veterinarian
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Owner
Name: _____
Address: _____
Postcode: _____
City/Region: _____
Report to: Veterinarian Owner Other*
Other: _____

Diagnostics
Animal species
Dog Cat Horse Rabbit
Reid Hamster/pig
Other

Name | internal identification code

Date of sampling

Sample material
Carcass Urine Serum/blood
Anal swab Skin swab Nasal swab
Other

Case history / comments

Type of examination
 Bacteriological examination Pathogen typing
 Mycological examination Resistogram
 Parasitological examination Other

Autovaccine
Components (species / type)
Antigen 1 _____ Antigen 4 _____
Antigen 2 _____ Antigen 5 _____
Antigen 3 _____ Antigen 6 _____
Antigen 7 _____ Antigen 8 _____

Remarks

With my signature I authorise INVAC International GmbH to test the submitted sample material for a fee and/or to produce an autovaccine for a fee.
X Place, date, signature

INVAC International GmbH
Marktstraße 1
14542 Werder (Havel)
Fax +49(0)3327 46595-0
Fax +49(0)3327 46595-10
info@invac.eu
www.invac.eu

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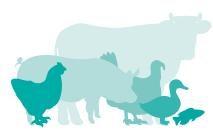
Then simply send them back to us immediately and we will get back to you!

You can find our forms at www.invac.eu/formulare

Sie brauchen unsere Unterstützung? Am schnellsten geht es, wenn Sie unsere Formulare ausfüllen.

Dann einfach umgehend an uns zurückschicken und wir melden uns bei Ihnen!

Sie finden unsere Formulare unter www.invac.eu/formulare



Working together
to improve animal health



INVAC International GmbH
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