

DESCRIPTION

Species Reactivity	Porcine
Specificity	Detects porcine IL-5 in direct ELISAs and Western blots. In direct ELISAs, less than 30% cross-reactivity with recombinant canine IL-5 and less than 10% cross-reactivity with recombinant human IL-5, recombinant mouse IL-5, and recombinant r
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant porcine IL-5 Ile20-Ser134 Accession # Q9MYM5
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Interleukin-5 (IL-5) is a secreted disulfide-linked homodimeric glycoprotein that belongs to the α -helical group of cytokines that includes IL-3, IL-5 and GM-CSF (1-3). IL-5 is primarily produced by CD4⁺ Th2 cells, but eosinophils and mast cells also produce IL-5. Porcine IL-5 is synthesized as a 134 amino acid (aa) precursor that contains a 19 aa signal sequence and a 115 aa mature segment (5). Four α -helices and two cysteines that form interchain disulfide bonds with a second, antiparallel IL-5 molecule are conserved among species (3-5). Monomeric IL-5 is a predicted 14 kDa protein but usage of N-linked glycosylation sites may increase its molecular weight (5). Mature porcine IL-5 shares 90%, 88%, 86%, 85%, 84%, 66%, 68%, 63%, 63% and 59% aa sequence identity with mature bovine, sheep, cat, equine, canine, human, guinea pig, cotton rat, murine and rat IL-5, respectively. Recombinant porcine IL-5 induced proliferation in the human TF-1 cell line (5). The receptor for human IL-5 consists of a 60 kDa ligand-binding subunit (IL-5 R α) and a 120 kDa signal-transducing subunit (β_c). It is suggested that dimeric IL-5 binding to IL-5 R α recruits β_c , which subsequently covalently links with IL-5 R α . Two receptor complexes then associate to form the physiologic IL-5 receptor (6, 7). IL-5 binds proteoglycans, potentially enhancing its activity (8). Following receptor binding, IL-5 promotes the maturation, activation and migration of eosinophils, as demonstrated during asthmatic eosinophilic lung inflammation (1-3). It also mobilizes eosinophils and CD34⁺ progenitors from marrow. It also enhances Ig release from B cells and contributes to IL-4 production. Finally, it primes basophils for histamine and leukotriene release (1, 2, 9).

PRODUCT SPECIFIC NOTICES

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