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AP09163PU-S Polyclonal Antibody to Interleukin-13 / IL13 - Aff - Purified

Alternate names: IL-13, NC30

Quantity: 25 µl

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

Background: Interleukin 13 (IL-13), of the IL-4 superfamily, is a cytokine secreted by many cell types, but especially T helper type 2 (Th2) cells, that is an important mediator of allergic inflammation and disease. IL-13 induces its effects through a multi-subunit receptor that includes the alpha chain of the IL-4 receptor (IL-4Ra) and at least one IL-13-specific binding chain. Most of the biological effects of IL-13, like those of IL-4, are linked to a single transcription factor, STAT6. In humans, IL-13 can induce immunoglobulin E (IgE) secretion from activated B cells. In mice, deletion of IL-13 does not markedly affect either Th2 cell development or antigen-specific IgE responses induced by potent allergens. Deletion of IL-4 abrogates these responses. IL-13 acts as a molecular bridge linking allergic inflammatory cells to the non-immune cells in contact with them, thus altering physiological function. Although IL-13 is associated primarily with the induction of airway disease, including airway hyperresponsiveness, goblet cell metaplasia and mucus hypersecretion, it also induces airway matrix metalloproteinases as part of a mechanism that protects against excessive allergic inflammation that predisposes to asphyxiation.

Uniprot ID: Q95I68

NCBI: NP_998968.1

GeneID: 396721

Host / Isotype: Rabbit / IgG

Immunogen: Full length recombinant protein raised in yeast, corresponding to mature swine IL-13 protein

Format:
State: Lyophilized
Purification: Affinity chromatography on Protein A
Buffer System: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide
Reconstitution: Restore with 100 µL of deionized water or equivalent.

Applications: ELISA: 1/11,000.
Western Blot: 1.5 - 2 µg/ml.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody reacts to Interleukin-13.

Species Reactivity:
Tested: Porcine.
Expected from sequence similarity: Sheep, Dolphin, Beluga, Bovine, Human, Certain monkey, Dusky titi, Macaque, Baboon, Mangabey, Canine, Llama, Camel, Galago, Horse, Rat, Mouse, Gerbil.

Storage:

Prior to reconstitution store at 2-8°C.
Following reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

1. Trigona WL, Brown WC, Estes DM. Functional implications for signaling via the IL4R/IL13R complex on bovine cells. Vet Immunol Immunopathol. 1999 Dec 15;72(1-2):73-9. PubMed PMID: 10614495.
2. B.Lew, D.Lyles, K.Dempsey, Y.Zhao (2000) Mitogenic effect of IL-13 in bovine airway smooth muscle cells (ASMC). Journal of Allergy and Clinical Immunology, Volume 105, Issue 1, Page S299

Pictures:

Western blot using Protein-A Purified Anti-swine IL-13 antibody shows detection of recombinant swine IL-13 at 13.2kDa (arrow) raised in yeast. Multiple bands are expected of the glycosylated protein. Protein was purified and resolved by SDS-PAGE, then transferred to PVDF membrane. Membrane was blocked with 3% BSA (BSA-30, diluted 1:10), and probed with Rockland Immunochemicals, Inc. Anti-swine IL-13. After washing, membrane was probed with Dylight(TM) 649 Conjugated Anti-Rabbit IgG (H&L) (Donkey) Antibody