Human IL-36α/IL-1F6 Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1087A
Catalog Number: MAB10782

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-36 alpha/IL-1F6 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1087A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	*E. coli*-derived human IL-36 alpha/IL-1F6 Lys6-Phe158 Accession # NP_055255
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

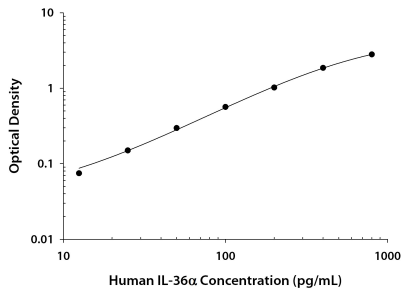
APPLICATIONS

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.*

ELISA	This antibody functions as an ELISA detection antibody when paired with Rabbit Anti-Human IL-36α/IL-1F6 Monoclonal Antibody (Catalog # MAB10783). *This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human IL-36 alpha/IL-1F6 DuoSet ELISA Kit (Catalog # DY1078-05) for convenient development of a sandwich ELISA.*

DATA

ELISA



Human IL-36α/IL-1F6 ELISA Standard Curve. Recombinant Human IL-36α/IL-1F6 protein was serially diluted 2-fold and captured by Rabbit Anti-Human IL-36α/IL-1F6 Monoclonal Antibody (Catalog # MAB10783) coated on a Clear Polystyrene Microplate (Catalog # DY990). Rabbit Anti-Human IL-36α/IL-1F6 Monoclonal Antibody (Catalog # MAB10782) was biotinylated and incubated with the protein captured on the plate. Detection of the standard curve was achieved by incubating Streptavidin-HRP (Catalog # DY998) followed by Substrate Solution (Catalog # DY999) and stopping the enzymatic reaction with Stop Solution (Catalog # DY994).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Human IL-36α, previously called IL-1F6 and FIL1ε (family of IL-1 member epsilon), is a member of the IL-1 family which includes IL-1β, IL-1α, IL-1ra, IL-18, and novel family members IL-36 Ra (IL-1F5), IL-36β (IL-1F8), IL-36γ (IL-1F9), IL-37 (IL-1F7) and IL-38 (IL-1F10) (1-4). All family members show a 12 β-strand, β-trefoil configuration, and are believed to have arisen from a common ancestral gene (1, 2). IL-36α is an 18-22 kDa, 158 amino acid (aa) intracellular and secreted protein that contains no signal sequence, no prosegment and no potential from N-linked glycosylation sites (1-3). It can be released in response to LPS and the cell ATP-induced activation of the P2X7 receptor (5). A 120 aa isoform missing aa 1-38 has been reported (6). Human IL-36α (aa 6 - 158) shares 57-68% aa sequence identity with mouse, rabbit, equine and bovine IL-36α and 27-57% aa sequence identity with other novel IL-1 family members. IL-36α is mainly found in skin and lymphoid tissues, but also in fetal brain, trachea, stomach and intestine (1, 3, 7). It is expressed by monocytes, B and T cells (1, 2). The receptor for IL-36α is a combination of IL-1 Rrp2 (also called IL1RL2 or IL-1 R6), mainly found in epithelia and keratinocytes, and the widely expressed IL-1 RAcP (3, 7). IL-36α, β, and γ all activate NF-κB and MAPK pathways in an IL-1 Rrp2 dependent manner, and induce production of inflammatory cytokines and chemokines such as CXCL8/IL-8 (7). IL-36α and other family members are overexpressed in psoriatic skin lesions, and transgenic overexpression of IL-36α in skin keratinocytes produces epidermal hyperplasia (7-9). IL-36α is present in kidney tubule epithelia, and it is highly expressed in intubulointerstitial lesions in mouse models of chronic glomerulonephritis, lupus nephritis and diabetic nephritis (10).

References:

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