

Datasheet for 210-301-B66S**IL-35 EBI3 Antibody****Overview**

Description:	Anti-Mouse EBI-3 (MOUSE) Monoclonal Antibody - 210-301-B66S
Item No.:	210-301-B66S
Size:	25 µL
Applications:	ELISA, WB, Cellular Assay
Reactivity:	Mouse
Host Species:	Mouse

Product Details**Background:**

The cytokine Interleukin 27 (IL-27) is produced in response to inflammation. It is made by activated antigen presenting cells including monocytes, endothelial cells, and dendritic cells. IL-27 consists of a heterodimeric combination of Epstein-Barr virus-induced molecule 3 (EBI3, or IL-27B) non-covalently linked with IL-27 p28 (or IL-27A). It is a regulator of T helper cell development and suppressor of T-cell proliferation. IL-27 has both pro- and anti-inflammatory properties. It can stimulate cytotoxic T cell activity and induce isotype switching in B-cells. It has diverse effects on innate immune cells. It induces monocytes and mast cells to secrete pro-inflammatory cytokines. When infection is present, IL-27 induces naive CD4+ T cells to proliferate and develop Th1 cell responses. As an anti-inflammatory regulator, IL-27 can inhibit Th1 or Th2 responses and restrict the strength and duration of adaptive immune responses.

The IL-27 p28 subunit, a 28 kDa glycoprotein belonging to the type I cytokine family, is homologous to IL-12 p35, IL-23 p19, and IL-6. The EBI3 (Epstein-Barr virus-induced molecule 3, or IL-27B) subunit is a 34 kDa glycoprotein containing two fibronectin type III domains, and belongs to the type I cytokine receptor family. It can exist as a homodimer and can also heterodimerize with IL-27 p28 or IL-12 p35 subunit. It is homologous to the p40 subunit of IL-12 and IL-23 and to the extracellular domain of IL-6 R.

Synonyms:	mouse anti-EBI3 antibody, mouse anti-IL-35 antibody, Epstein-Barr virus induced 3 protein, Interleukin-27 subunit beta, IL-27 subunit beta, IL-27B, Epstein-Barr virus-induced gene 3 protein, EBV-induced gene 3 protein, EBI-3, EBI3, IL-35, IL35
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	V1.4C4.22

Format: IgG2b

Target Details

Gene Name:	Ebi3
Reactivity:	Mouse
Immunogen Type:	Recombinant Protein
Immunogen:	Anti-EBI-3 (MOUSE) Monoclonal Antibody was produced in mouse by repeated immunizations with mature full length recombinant mouse EBI-3 produced in E.coli followed by hybridoma development.
Purity/Specificity:	Anti-Mouse EBI-3 (MOUSE) Monoclonal Antibody was purified from mouse ascites by Protein A chromatography followed by extensive dialysis against the buffer stated above. This antibody is specific for mouse EBI3 protein. A BLAST analysis was used to suggest cross-reactivity with EBI3 from mouse sources based on 100% homology with the immunizing sequence. Cross-reactivity with EBI-3 from other sources has not been determined.
Relevant Links:	• GeneID - 50498 • NCBI - NP_056581.1 • UniProtKB - O35228

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	Cellular Assay (Based on references)
Application Note:	Anti-Mouse EBI-3 antibody has been tested for use in ELISA and western Blot and is suitable for IP and Neutralization. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000
IP:	1µg/mL
Neutralization:	10µg/mL
WB:	1:1000

Formulation

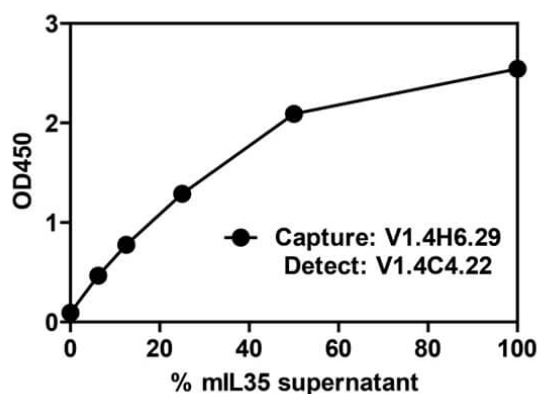
Physical State: Liquid (sterile filtered)

Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

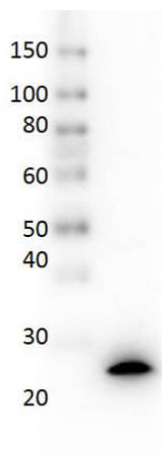
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



ELISA

ELISA - EBI-3 antibody. Supernatant from 293T cells transfected with a vector containing murine IL-35 was added to an ELISA plate coated with V1.4H6.29 at 2ug/ml in PBS. mEBI3 was detected with biotinylated V1.4C4.22

**Western Blot**

Western Blot of Mouse Anti-Mouse EBI-3 Antibody. Lane 1: Molecular Weight Marker. Lane 2: Mouse EBI-3. Primary Antibody: Mouse Anti-Mouse EBI3 at 1:1000 overnight at 2-8°C. Secondary Antibody: Rabbit Anti-Mouse IgG peroxidase (p/n 610-4302) at 1:40,000 for 30mins at RT. Block: (p/n MB-070).

References

- Feng W et al. B lymphocytes ameliorate Alzheimer's disease-like neuropathology via interleukin-35. *Brain Behav Immun.* (2023)
- Zhang et al. The Unknown Aspect of BAFF: Inducing IL-35 Production by a CD5+CD1dhiFcγRIIbhiRegulatory B-Cell Subset in Lupus. *Journal of Investigative Dermatology* (2017)

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