

Recombinant Mouse IL25/IL17E, Tag Free

Information

Accession #	Q8VHH8
Alternate Names	IL17E; IL-17E; IL25; IL-25; interleukin 25; Interleukin-17E; interleukin-25
Source	Human embryonic kidney cell, HEK293-derived mouse IL25/IL17E protein
Protein sequence	Val17-Ala169
M.Wt	17.5 kDa
Appearance	Solution protein
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 3 years from date of receipt, -20 to -70°C as supplied.
Concentration	0. 2 mg/mL
Formulation	Dissolved in sterile PBS buffer.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. This solution can be diluted into other aqueous buffers.
Biological Activity	The EC50 for this effect is 0.02-1.0 ng/mL. Measured by its ability to induce CXCL1/GRO alpha secretion in HT-29 human colon adenocarcinoma cells.
Shipping Condition	Shipping with dry ice.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.
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Quality Control

Purity	> 95%, determined by SDS-PAGE.
Endotoxin	<0.010 EU per 1 ug of the protein by the LAL method.

Description

IL-25, which is also known as IL-17E, promotes Th2-biased immune responses. This is in contrast to other IL-17 family members which promote Th1- and Th17-biased inflammation. IL-25 is an important mediator of allergic reactions and protection against intestinal parasites ^[1, 2]. Mature mouse IL-25 shares 80% and 91% amino acid sequence identity with human and rat IL-25, respectively ^[3, 4]. During helminth infections and allergic reactions IL-25 is locally up-regulated in intestinal and airway epithelial cells, atopic dermatitis skin lesions, and local Th2 cells, eosinophils, and basophils ^[4-9]. It binds to IL-17RB but also requires IL-17 RA to exert its activity ^[3, 8, 10]. IL-25 acts on a variety of cell types which respond with increased production of Th2 cytokines (e.g. IL-4, IL-5, IL-13) and reduced production of Th1 and Th17 cytokines (e.g. IFN- gamma, IL-12, IL-23, IL-17A, IL-17F) ^[4-6, 8, 9]. Airway IL-25 can be activated by

MMP-7, a protease that is up-regulated in airway epithelium in response to allergen exposure . Cleaved IL-25 shows enhanced binding to IL-17 RB and stronger induction of Th2 cytokines . The Th2 cytokines, in turn, trigger expansion of Th2 memory cells and antiinflammatory M2 macrophages, increased eosinophil mobilization and activation, and dendritic cell migration ^[4, 6, 9]. These actions promote protective anti-helminth immune responses ^[4, 5] as well as allergic inflammation and airway hyperreactivity^[11]. The IL-25 induced suppression of Th1 and Th17 cytokines limits Th17 cell expansion and disease pathology in autoimmunity and colitis^[12]

Reference

- [1]. Saadoun, D. et al. (2011) Curr. Pharm. Des. 17:3781.
- [2]. Iwakura, Y. et al. (2011) Immunity 34:149.
- [3]. Lee, J. et al. (2001) J. Biol. Chem. 276:1660.
- [4]. Fort, M.M. et al. (2001) Immunity 15:985.
- [5]. Zhao, A. et al. (2010) J. Immunol. 185:6921.
- [6]. Suzukawa, M. et al. (2012) J. Immunol. 189:3641.
- [7]. Corrigan, C.J. et al. (2011) Proc. Natl. Acad. Sci. USA 108:1579.
- [8]. Petersen, B.C. et al. (2012) Nat. Med. 18:751.
- [9]. Wang, Y.-H. et al. (2007) J. Exp. Med. 204:1837.
- [10]. Rickel, E.A. et al. (2008) J. Immunol. 181:4299.
- [11]. Hurst, S.D. et al. (2002) J. Immunol. 169:443.

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[12]. Kleinschek, M.A. et al. (2007) J. Exp. Med. 204:161







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