

Revision 1

 Store at -20C
 #87477

Human IL-16 Recombinant Protein

10 µg



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MW (kDa):
13.4

UniProt ID:
Q14005

Entrez-Gene Id:
3603

Background

Interleukin 16 (IL-16) is pleiotropic cytokine that functions as a chemoattractant, a modulator of T cell activation, and an inhibitor of HIV replication (1-4). IL-16 is associated with the development of multiple sclerosis, an inflammatory demyelinating disease of the central nervous system (5). Studies have shown that there is increased expression of IL-16 in the brain and spinal cord tissues of experimental autoimmune encephalomyelitis (EAE) mice compared to immunized controls. This resulted in recruitment and activation of CD4⁺ immune cells in the neuroinflammation associated with multiple sclerosis (5). IL-16 is a 17 kDa peptide that interacts with its receptor, the CD4 antigen, and functions as a growth factor specifically for CD4⁺ T cells. This pleiotropic cytokine is known to play a role in immunodeficiency diseases, such as AIDS (6).

Endotoxin

Endotoxin levels are less than or equal to 1 EU / 1 µg hIL-16.

Purity

A greater than or equal to 95% purity was determined by SDS-PAGE.

Source / Purification

Recombinant human IL-16 was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity

Storage

Human IL-16 Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/mL which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

Background References

1. Cruikshank, W. and Center, D.M. (1982) *J Immunol* 128, 2569-74.
2. Center, D.M. et al. (1983) *J Immunol* 131, 1854-9.
3. Shimokawa, Y et al. (1984) *Immunology* 51, 275-85.
4. Cruikshank, W.W. et al. (2000) *J Leukoc Biol* 67, 757-66.
5. Hridi, S.U. et al. (2021) *Biology (Basel)* 10, 472. doi: 10.3390/biology10060472.
6. Cruikshank, W.W. et al. (1998) *Int Rev Immunol* 16, 523-40.

APPLICATIONS KEY

CROSS-REACTIVITY KEY H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr:

hspc: Rabbit All: all species expected

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