

Product datasheet

Recombinant mouse IL-33 protein ab109164

Description

Product name	Recombinant mouse IL-33 protein
Biological activity	Activates ST2 dependent NF-κB pathway.
Purity	> 95 % SDS-PAGE.
Endotoxin level	< 0.100 Eu/μg
Expression system	Escherichia coli
Accession	Q8BVZ5
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Mouse
Predicted molecular weight	18 kDa
Amino acids	109 to 266

Specifications

Our [Abpromise guarantee](#) covers the use of **ab109164** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE
Form	Lyophilized
Additional notes	PBS containing at least 0.1 % BSA should be used for further dilutions.

Preparation and Storage

Stability and Storage	Shipped at 4°C. After reconstitution store at -20°C. Avoid freeze / thaw cycles. Constituent: 99% PBS This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute with 100 μl sterile water.

General Info

Function	<p>Cytokine that binds to and signals through the IL1RL1/ST2 receptor which in turn activates NF-kappa-B and MAPK signaling pathways in target cells (PubMed:16286016). Involved in the maturation of Th2 cells inducing the secretion of T-helper type 2-associated cytokines. Also involved in activation of mast cells, basophils, eosinophils and natural killer cells. Acts as a chemoattractant for Th2 cells, and may function as an "alarmin", that amplifies immune responses during tissue injury (PubMed:17853410, PubMed:18836528).</p> <p>In quiescent endothelia the uncleaved form is constitutively and abundantly expressed, and acts as a chromatin-associated nuclear factor with transcriptional repressor properties, it may sequester nuclear NF-kappaB/RELA, lowering expression of its targets (PubMed:21734074). This form is rapidly lost upon angiogenic or proinflammatory activation (PubMed:18787100).</p>
Tissue specificity	<p>Expressed at high level in high endothelial venules found in tonsils, Peyer patches and mesenteric lymph nodes. Almost undetectable in placenta.</p>
Sequence similarities	<p>Belongs to the IL-1 family. Highly divergent.</p>
Domain	<p>The homeodomain-like HTH domain mediates nuclear localization and heterochromatin association.</p>
Post-translational modifications	<p>The full length protein can be released from cells and is able to signal via the IL1RL1/ST2 receptor. However, proteolytic processing by CSTG/cathepsin G and ELANE/neutrophil elastase produces C-terminal peptides that are more active than the unprocessed full length protein. May also be proteolytically processed by calpains (PubMed:19596270). Proteolytic cleavage mediated by apoptotic caspases including CASP3 and CASP7 results in IL33 inactivation (PubMed:19559631). In vitro proteolytic cleavage by CASP1 was reported (PubMed:16286016) but could not be confirmed in vivo (PubMed:19465481) suggesting that IL33 is probably not a direct substrate for that caspase.</p>
Cellular localization	<p>Nucleus. Chromosome. Cytoplasmic vesicle, secretory vesicle. Secreted. Associates with heterochromatin and mitotic chromosomes (PubMed:17185418).</p>

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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