Recombinant Mouse IL-20 protein(His Tag)

Catalog Number: PKSM041468

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

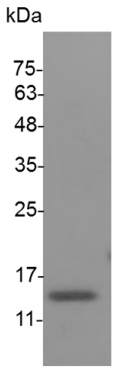
Description

Species	Mouse
Source	E.coli-derived Mouse IL-20 protein Leu 25-Leu 176, with an C-terminal His
Calculated MW	18.5 kDa
Observed MW	11-17 kDa
Accession	Q9JKV9
Bio-activity	Measure by its ability to induce proliferation in BaF3 cells transfected with humanIL-20 R alpha and human IL-20 R beta.The ED_{50} for this effect is <2 ng/mL.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Interleukin-20 (IL-20) is a member of the IL-10 family of regulatory cytokines that includes IL-10, IL-19, IL-20, IL-22, IL-24 and IL-26. Members of this family share partial homology in their amino acid sequences but they are dissimilar in their biological functions. IL-20 exhibits approximately 28% amino acid identity with IL-10 and 76% amino acid identity with mouse IL-20. There are two heterodimeric receptor complexes for IL-20. The first is composed of IL-20 Rα and IL-20 Rβ. The second is composed of IL-22 R and IL-20 Rβ. Whereas the IL-22 R/IL-20 Rβ complex is shared with IL-24, the IL-20 R α/IL-20 Rβ complex is shared with both IL-19 and IL-24. IL-20 has been shown to initiate transduction cascades involving STAT3 and stimulates the induction of pro-inflammatory genes including TNF-α and MCP-1. Initial functional studies using transgenic mice suggest that IL-20 has the ability to regulate skin development. The over-expression of both human and mouse forms of IL-20 results in keratinocyte hyper-proliferation, abnormal epidermal differentiation, and neonatal lethality. In humans, IL-20 and its receptors are up-regulated in psoriatic skin, and polymorphisms in the IL-20 gene have been associated with plaque-type psoriasis. IL-20 may also have a role in hematopoiesis. It enhances the proliferation of multi-potential progenitors in vitro and increases their numbers and cell cycling status in IL-20 transgenic mice. IL-20 is also shown to suppress COX-2 and PGE2 and acts as an inhibitor of angiogenesis in model systems.