Mouse $_{His6}$Interleukin-27 (m$_{His6}$IL-27)

Cell Signaling
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MW (kDa):	UniProt ID:	Entrez-Gene Id:
55	#Q8K3I6	246779

Background

IL-27 is a heterodimer that consists of p28 and EBI3 (1). Antigen presenting cells including monocytes, macrophages, and dendritic cells are the primary sources of IL-27 (1). IL-27 is a pleiotropic cytokine with both pro- and anti-inflammatory activities. IL-27 suppresses TH17 responses and promotes type I regulatory cell differentiation (2-4). In contrast, IL-27 has been shown to play a pro-inflammatory role in a mouse model of T cell-induced colitis (5). IL-27 may also have anti-viral activities (6). IL-27 exerts its effects through a heterodimeric receptor consisting of WSX-1 and gp130 (1,7). IL-27-induced signaling results in Stat1 and Stat3 phosphorylation (1,7).

Endotoxin

Less than 0.01 ng endotoxin/1μg m$_{His6}$IL-27.

Purity

>97% as determined by SDS-PAGE of 6 μg reduced (+) and non-reduced (-) recombinant m$_{His6}$IL-27. All lots are greater than 97% pure.

Source / Purification

Recombinant mouse $_{His6}$IL-27 (m$_{His6}$IL-27) is a heterodimer that is composed of EBI3 Tyr19-Pro228 (Accession# NP_056581) linked to p28 Phe29-Ser234 (Accession# NP_663611) via the linker GGGSGGGSGGGSGGGS. m$_{His6}$IL-27 was expressed in human 293 cells at Cell Signaling Technology.

Bioactivity

The bioactivity of m$_{His6}$IL-27 was determined in a virus protection assay. The ED$_{50}$ of each lot is between 1-6 ng/ml.

Background References

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3. Apetoh, L. et al. (2010) *Nat Immunol* 11, 854-61.
4. Murugaiyan, G. et al. (2010) *Proc Natl Acad Sci U S A* 107, 11495-500.
5. Cox, J.H. et al. (2011) *J Exp Med* 208, 115-23.
6. Bender, H. et al. (2009) *Hepatology* 50, 585-91.
7. Pflanz, S. et al. (2004) *J Immunol* 172, 2225-31.

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