Data Sheet (Cat.No.TMPY-03927)

TargetMol

IFNAR1 Protein, Rhesus, Recombinant

General Information

Synonyms:	interferon (α, β and ω) receptor 1;interferon (alpha, beta and omega) receptor 1
Protein Construction:	A DNA sequence encoding the rhesus IFNAR1 (NP_001253442.1) (Met1-Lys437) was expressed with six amino acids (LEVLFQ) at the C-terminus. Predicted N terminal: Ala 25
Species:	Rhesus
Expression Host:	HEK293 Cells
Accession:	H9Z8H4
Molecular Weight:	48.3 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interferon-alpha/beta receptor alpha chain (IFNAR1) is a type I membrane protein that forms one of the two chains of a receptor for interferons alpha and beta. Binding and activation of the receptor stimulate Janus protein kinases, which in turn phosphorylate several proteins, including STAT1 and STAT2. The encoded protein also functions as an antiviral factor. Tyk2 slows down IFNAR1 degradation and that this is due, at least in part, to inhibition of IFNAR1 endocytosis. Mutant versions of IFNAR1, in which Tyr466 is changed to phenylalanine, can act

in a dominant-negative manner to inhibit phosphorylation of STAT2. These observations are consistent with a model in which IFNAR1 mediates the interaction between JAK kinases and the STAT transcription factors.

Reference

Yan H,et al.(1996) Phosphorylated interferon-alpha receptor 1 subunit (IFNaR1) acts as a docking site for the latent form of the 113 kDa STAT2 protein. EMBO J. 15(5): 1064-74.

Richter MF,et al.(1998) Specific contribution of Tyk2 JH regions to the binding and the expression of the interferon alpha/beta receptor component IFNAR1. J Biol Chem. 273(38): 24723-9.

Abramovich C,et al.(1997) A protein-arginine methyltransferase binds to the intracytoplasmic domain of the IFNAR1 chain in the type I interferon receptor. EMBO J. 16(2): 260-6.

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