ST2/IL1RL1 Protein, Cynomolgus (HEK293, His)

Cat. No.:	HY-P76660
Synonyms:	Interleukin-1 receptor-like 1; Interleukin-33 receptor alpha chain; Il1rl1; Ly84; St2; Ste2
Species:	Cynomolgus
Source:	HEK293
Accession:	XP_005575214 (M1-C331)
Gene ID:	102115135
Molecular Weight:	Approximately 37.1 kDa

PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

ST2/IL1RL1 Protein is a member of the toll-like receptor superfamily, but unlike other members, it does not induce inflammatory responses by activating NF-κB, although it can activate MAP kinase. ST2/IL1RL1 Protein exists in two forms (soluble and membrane-bound forms). When the heart muscle is stretched, the ST2 gene is upregulated, and the circulating soluble ST2/IL1RL1 Protein concentration rapidly increases. Its membrane-bound form serves as a receptor for IL-33, which binds to IL-33 to regulate cardiac diseases and injuries, such as ischemic events, triggering a cardioprotective effect and maintaining cardiac function. The membrane-bound form of ST2/IL1RL1 Protein negatively regulates the signaling transduction of type I interleukin 1 receptor (IL-1RI) and toll-like receptor 4 (TLR4) by sequestering the adaptor MyD88 and Mal. It can maintain endotoxin tolerance[1][2].

Overexpression of ST2/IL1RL1 Protein increases the production of neutrophil chemokine IL-8 and enhances HRV1B-induced IP-10 (a chemokine involved in exacerbation of asthma). ST2/IL1RL1 Protein also promotes proinflammatory responses to airway bacterial and viral infections. Therefore, ST2/IL1RL1 Protein plays an important role in inflammation regulation[3].

Caution: Product has not been fully validated for medical applications. For research use only.

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