

ST2/IL1RL1 Protein, Mouse (332a.a, HEK293, His)

Cat. No.:	HY-P76662
Synonyms:	Interleukin-1 receptor-like 1; Interleukin-33 receptor alpha chain; Il1rl1; Ly84; St2; Ste2
Species:	Mouse
Source:	HEK293
Accession:	P14719 (M1-R332)
Gene ID:	17082
Molecular Weight:	Approximately 55.7 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.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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 serves as a receptor for interleukin-33 (IL-33), playing crucial roles in innate and adaptive immunity to maintain tissue homeostasis and respond to environmental stresses, in conjunction with its coreceptor IL1RAP. Upon stimulation, it recruits MYD88, IRAK1, IRAK4, and TRAF6, leading to the phosphorylation of various MAPKs, including MAPK3/ERK1, MAPK1/ERK2, MAPK14, and MAPK8. This receptor is implicated in helper T-cell function and, in the context of tissue injury, induces a UCP2-dependent mitochondrial rewiring. This rewiring attenuates the generation of reactive oxygen species, preserving the integrity of the Krebs cycle. This preservation is essential for sustained production of itaconate and subsequent GATA3-dependent differentiation of inflammation-resolving alternatively activated macrophages. Additionally, ST2/IL1RL1 plays a role in inhibiting IL-33 signaling.
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Caution: Product has not been fully validated for medical applications. For research use only.

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