

## SRP54 Protein, Human (sf9, His)

Cat. No.:	HY-P74537
Synonyms:	Signal recognition particle 54 kDa protein; SRP54
Species:	Human
Source:	Sf9 insect cells
Accession:	P61011 (M1-M504)
Gene ID:	6729
Molecular Weight:	Approximately 58 kDa

### PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of 20 mM Tris, pH 7.5, 300 mM NaCl, 10% Glycerol. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/ $\mu$ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> 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	<p>SRP54, an essential component of the signal recognition particle (SRP) complex, contributes to the cotranslational targeting of secretory and membrane proteins to the endoplasmic reticulum (ER). Within the SRP complex, SRP54 associates with the SRP receptor (SR) component SRPRA to facilitate the targeting of secretory proteins to the ER membrane. Functioning at the forefront of this process, SRP54 binds to the signal sequence of presecretory proteins as they emerge from the ribosomes. Notably, SRP54 exhibits basal GTPase activity and collaborates in the reciprocal GTPase activation of the SR subunit SRPRA, forming a GTP-dependent complex crucial for SRP-mediated cotranslational protein translocation into the ER. The presence of SRP9/SRP14 and/or SRP19 is required for the stable interaction of SRP54 with RNA. Beyond its role in protein translocation, SRP54 plays a significant part in diverse cellular processes, including the regulation of granulocytic cell proliferation, neutrophil migration capacity, and the development of the exocrine pancreas.</p>
------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA