

## STAT3 Protein, Human (Full Length, His)

<b>Cat. No.:</b>	HY-P701098
<b>Synonyms:</b>	STAT3; signal transducer and activator of transcription 3 (acute-phase response factor); signal transducer and activator of transcription 3; APRF;
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P40763-1 (M1-M770)
<b>Gene ID:</b>	6774
<b>Molecular Weight:</b>	Approximately 92.1 kDa

### PROPERTIES

<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, 6% Trehalose, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O.
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>STAT3, a signal transducer and transcription activator, orchestrates cellular responses to various growth factors, interleukins, and cytokines. Upon activation, STAT3 recruits coactivators to the promoter region of target genes, thereby mediating diverse cellular processes such as proliferation, differentiation, and immune response regulation. It responds to signaling from interleukin-6, KITLG/SCF, and other growth factors, facilitating a cascade of downstream events. Additionally, STAT3 plays a role in cell cycle regulation, inflammatory response modulation, and energy homeostasis. Its functions extend to influencing apoptosis, melanocortin production, and insulin secretion. The protein's activation involves homodimerization or heterodimerization with related family members. STAT3 interacts with an array of molecules, including IL31RA, NCOA1, PELP1, SIPAR, SOCS7, STATIP1, and others, contributing to its intricate involvement in cellular signaling pathways.</p>
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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