

DESCRIPTION

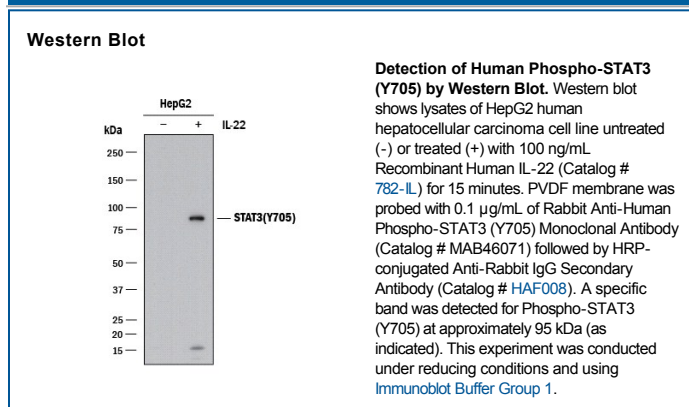
Species Reactivity	Human
Specificity	Detects human STAT3 when phosphorylated at Y705 in Western blots.
Source	Recombinant Monoclonal Rabbit IgG _{2B} Clone # 1004G
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human STAT3 Y705 site Accession # P40763
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Human STAT-3/STAT3a (signal transducer and activator of transcription 3; also called APRF) is a 90-95 kDa member of the STAT family of transcription factors. It is 770 amino acids (aa) in length, contains one SH2 domain (aa 580-670), and is found in almost all cell types. STAT3 mediates gp130, LIF-R, OB-R, IL10-R and EGFR signaling. Upon activation, receptors such as gp130 phosphorylate STAT3 at Ser727, which results in transcriptional activation. Phosphorylation at Tyr705 mediates homo- and hetero-dimerization with STAT1 and nuclear translocation, and is an important event in oncogenic transformation. The STAT3b isoform shows a six aa substitution for aa 716-770, thus eliminating the Ser727 site. Human and mouse STAT3a share 99% aa sequence identity.