

Kit Includes	Quantity	Applications	Reactivity	MW (kDa)	Isotype
Jak1 (6G4) Rabbit mAb #3344	40 µl	W IP IHC-P	H M R (Mk) (Dg) (Pg)	130	Rabbit IgG
Jak2 (D2E12) XP® Rabbit mAb #3230	40 µl	W IP IHC-P IF-IC F	H M R (Hm) (Mk) (C) (X) (B) (Dg) (Pg) (Hr)	125	Rabbit IgG
Jak3 (D1H3) Rabbit mAb #8827	40 µl	W IP IF-IC	H (Mk)	115	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody #7074	100 µl				Goat

Applications Key: W=Western Blotting IP=Immunoprecipitation IHC-P=Immunohistochemistry (Paraffin) IF-IC=Immunofluorescence (Immunocytochemistry) F=Flow Cytometry

Reactivity

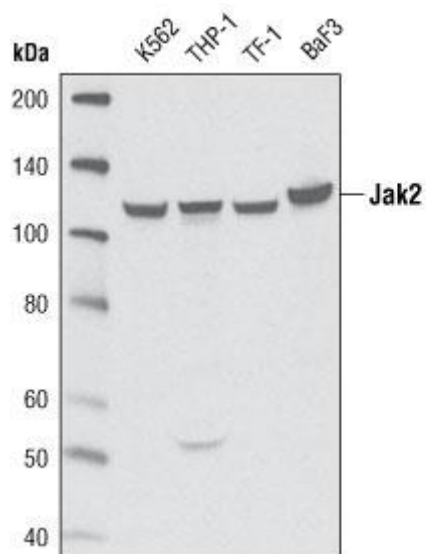
Key: H=Human M=Mouse R=Rat Hm=Hamster Mk=Monkey C=Chicken X=Xenopus B=Bovine Dg=Dog Pg=Pig Hr=Horse

Species enclosed in parentheses are predicted to react based on 100% sequence homology.

Specificity / Sensitivity

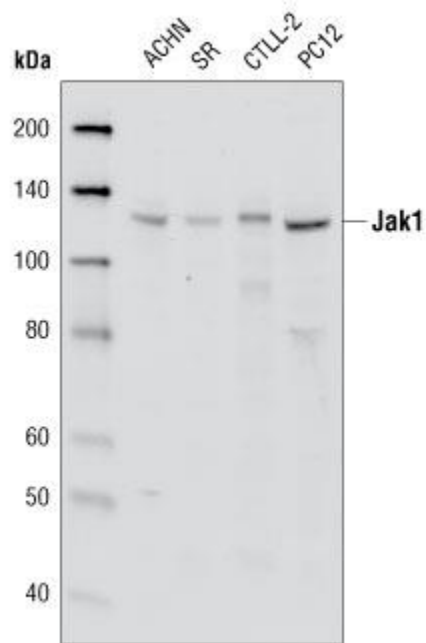
Each Jak isoform antibody recognizes endogenous levels of the specified Jak isoform independent of its phosphorylation state. Neither antibody cross-reacts with the two other isoforms.

Western Blotting



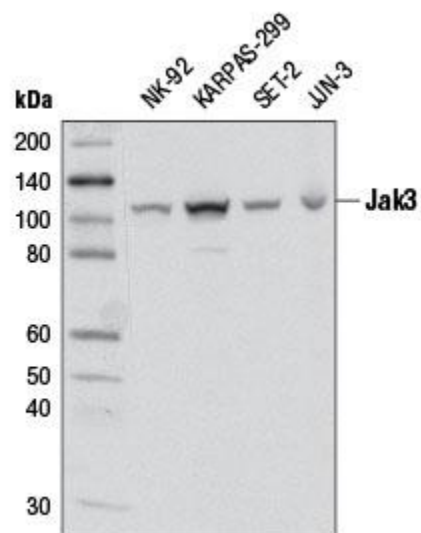
Western blot analysis of extracts from K562, THP-1, TF-1 and BaF3 cell lines using Jak2 (D2E12) XP®Rabbit mAb #3230.

Western Blotting



Western blot analysis of extracts from ACHN, SR, CTLL-2 and PC12 cell lines using Jak1 (6G4) Rabbit mAb #3344.

Western Blotting



Western blot analysis of extracts from various cell lines using Jak3 (D1H3) Rabbit mAb #8827.

Description

The Jak Isoform Antibody Sampler Kit provides an economical means to examine several Jak isoforms. The kit contains enough primary and secondary antibodies to perform four Western blot experiments per primary antibody.

Source / Purification

Each isoform-specific antibody is produced by immunizing animals with a synthetic peptide that is specific for the Jak isoform. Jak1 and Jak3 antibodies are purified by protein A and peptide affinity chromatography. Each Jak antibody included in this kit is specific and does not cross-react with the other isoforms.

Background

Members of the Janus family of tyrosine kinases (Jak1, Jak2, Jak3, and Tyk2) are activated by ligands binding to a number of associated cytokine receptors (1). Upon cytokine receptor activation, Jak proteins become autophosphorylated and phosphorylate their associated receptors to provide multiple binding sites for signaling proteins. These associated signaling proteins, such as Stats (2), Shc (3), insulin receptor substrates (4), and focal adhesion kinase (FAK) (5), typically contain SH2 or other phospho-tyrosine-binding domains.

1. [Leonard, W.J. and O'Shea, J.J. \(1998\) *Annu Rev Immunol* 16, 293-322.](#)
2. [Darnell, J.E. \(1997\) *Science* 277, 1630-5.](#)
3. [VanderKuur, J. et al. \(1995\) *J Biol Chem* 270, 7587-93.](#)
4. [Argetsinger, L.S. et al. \(1995\) *J Biol Chem* 270, 14685-92.](#)
5. [Zhu, T. et al. \(1998\) *J Biol Chem* 273, 10682-9.](#)