



**Mouse (monoclonal)  
Anti- human JAK3  
Unconjugated**

**PRODUCT ANALYSIS SHEET**

<b>Catalog Number:</b>	AHO1572
<b>Lot Number:</b>	See product label
<b>Quantity/Volume:</b>	100 µg/0.2 mL
<b>Clone Number:</b>	515R6
<b>Isotype:</b>	IgG1 κ (mouse)
<b>Form of Antibody:</b>	Purified immunoglobulin in phosphate buffered saline, pH 7.4.
<b>Preservation:</b>	0.1% sodium azide (Caution: sodium azide is a poisonous and hazardous substance. Handle with care and dispose of properly.)
<b>Purification:</b>	Purified from ascites by affinity chromatography.
<b>Immunogen:</b>	Recombinant human JAK3 N-terminal fragment.
<b>Specificity:</b>	This antibody recognizes a protein of ~125 kDa identified as JAK3. JAK3 known as Janus kinase 3 is a tyrosine kinase that belongs to the Janus family. JAK3 functions in signal transduction and interacts with members of the STAT (signal transduction and activators of transcription) family. JAK3 is predominantly expressed in immune cells and transduces a signal in response to its activation via tyrosine phosphorylation by interleukin receptors. Mutations of Jak3 cause primary immunodeficiency.
<b>Species Reactivity:</b>	Human. Does not react with mouse and rat. Other species were not tested.
<b>Applications:</b>	This antibody is suitable for use in Western blotting.
<b>Suggested Working Dilutions:</b>	For Western blotting, the recommended concentration is 1 µg/mL. The optimal antibody concentration should be determined for each specific application.
<b>Recommended Positive Control:</b>	Human Jurkat and HeLa cells.
<b>Storage:</b>	Store at 2-8°C. For long term storage, aliquot into small volumes and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

**This product is for research use only. Not for use in diagnostic procedures.**

[www.invitrogen.com](http://www.invitrogen.com)

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: [techsupport@invitrogen.com](mailto:techsupport@invitrogen.com)

PI AHO1572

(Rev 10/08) DCC-08-1089

**Important Licensing Information** - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, [www.invitrogen.com](http://www.invitrogen.com)). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

**References:**

Watford, W. T. and J. J. O'Shea, (2007) Human tyk2 kinase deficiency: another primary immunodeficiency syndrome. *Immunity* 25(5):695-7.

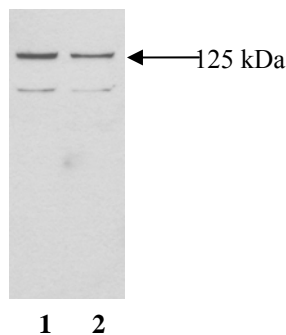
Vassilev, A.O. et al., (2006) Targeting JAK3 and BTK tyrosine kinases with rationally-designed inhibitors. *Curr. Drug Targets* 7(3):327-43.

Pesu, M. et al., (2005) Jak3, severe combined immunodeficiency, and a new class of immunosuppressive drugs. *Immunol. Rev.* 203:127-42.

Verma, A. et al., (2003) Jak family of kinases in cancer. *Cancer Metastasis Rev.* 22:423-34.

**Related Products:**

Anti JAK1 monoclonal antibody	Cat. # AHO1512
Anti JAK2 monoclonal antibody	Cat. # AHO1352
Anti- JAK1 [pYpY1022/1023] antibody	Cat. # 44-422
Anti- JAK2 [pYpY1007/1008] antibody	Cat. # 44-426G

**Western Blot Analysis**

Proteins from cell extracts of human Jurkat and HeLa cells were resolved by SDS-PAGE and transferred to PVDF. The membranes were incubated with this JAK3 monoclonal antibody (clone 515R6) at a concentration of 1 µg/mL (lane 1 – Jurkat, lane 2 - HeLa) for two hours at room temperature. After washing, the membranes were incubated with a goat F(ab')<sub>2</sub> anti-mouse IgG HRP conjugated antibody (Cat. #65-6420) at a 1:5000 dilution. Bands were detected with ECL Chemiluminescent Substrate and Pierce CL-X Posure<sup>TM</sup> film.

**This product is for research use only. Not for use in diagnostic procedures.**

[www.invitrogen.com](http://www.invitrogen.com)

Invitrogen Corporation • 542 Flynn Rd • Camarillo • CA 93012 • Tel: 800.955.6288 • E-mail: [techsupport@invitrogen.com](mailto:techsupport@invitrogen.com)

PI AHO1572

(Rev 10/08) DCC-08-1089

**Important Licensing Information** - These products may be covered by one or more Limited Use Label Licenses (see the Invitrogen Catalog or our website, [www.invitrogen.com](http://www.invitrogen.com)). By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.