

## ARG30158 Jak2/Stat3 pathway Antibody Panel

Package: 1 kit  
Store at: -20°C

### Component

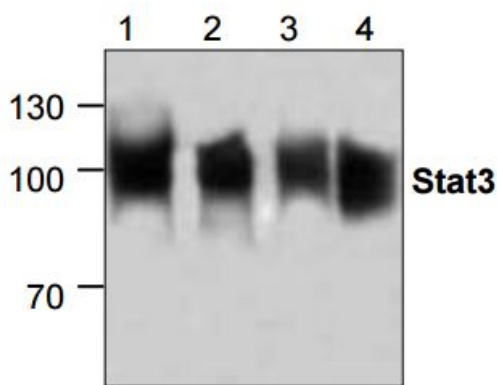
Cat. No.	Component Name	Host clonality	Reactivity	Application	Package	
ARG51112	ARG51650	ARG20426	ARG65351	Goat anti-Rabbit IgG antibody (HRP)	Goat pAb	Rb

### Summary

Product Description	<p>Jaks and Stats are critical components of many cytokine receptor systems, regulating growth, survival, differentiation, and pathogen resistance. The phosphorylated sites on the receptor and Jaks serve as docking sites for the SH2-containing Stats, such as Stat3, and for SH2-containing proteins and adaptors that link the receptor to MAP kinase, PI3K/Akt, and other cellular pathways. It is generally thought that tyrosine phosphorylation regulates the dimerization of STATs as an essential prerequisite for the establishment of a classical Jak2/Stat3 signaling pathway and Tyr705 phosphorylation has been regarded as a characteristic of Stat3 activation. However, the Stat3 molecule contains a second phosphorylation site, Ser727, within its C-terminus. The Jak2/Stat3 pathway mediates the effects of cytokines, like erythropoietin, thrombopoietin, and G-CSF, which are protein drugs for the treatment of anemia, thrombocytopenia, and neutropenia, respectively. The pathway also mediates signaling by interferons, which are used as antiviral and antiproliferative agents.</p> <p>Yu H., Pardoll D., Jove R. (2009) Nat. Rev. Cancer 9(11), 798–809.  Sakaguchi M. et al. (2012) Journal of Investigative Dermatology 132, 1877–1885.  Aaronson D.S. and Horvath C.M. (2002) Science 296, 1653–1655.  Hebenstreit D. et al. (2005) Drug News Perspect 18, 243–249.</p>
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### Properties

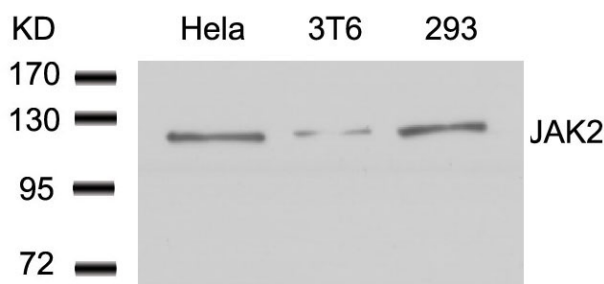
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
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ARG20426 anti-Stat3 antibody WB image

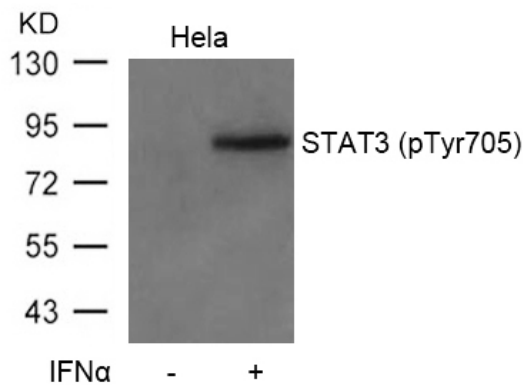
Western Blot: 1,2. Jurkat cell lysate 3. 3T3 cell lysate 4. Rat kidney tissue lysate stained with anti-Stat3 antibody (ARG20426).

The antibody recognizes ~97 kDa Stat3 in samples from human, mouse, and rat origins.



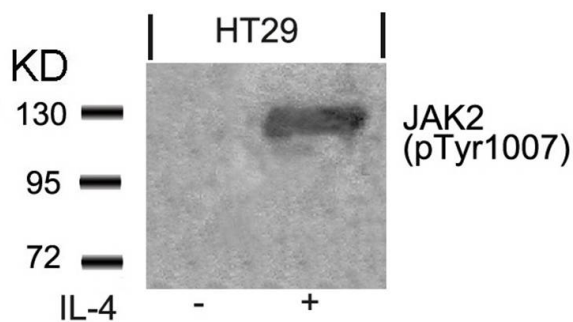
ARG51112 anti-JAK2 antibody WB image

Western Blot: extracts from HeLa, 3T6 and 293 cells stained with anti-JAK2 antibody ARG51112.



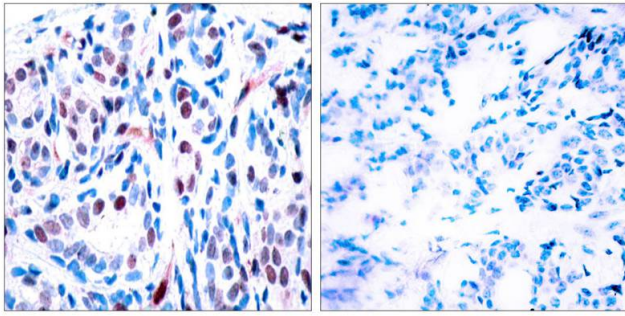
ARG51549 anti-STAT3 phospho (Tyr705) antibody WB image

Western Blot: extracts from HeLa cells untreated or treated with IFN $\alpha$  stained with anti-STAT3 (phospho Tyr705) antibody ARG51549.



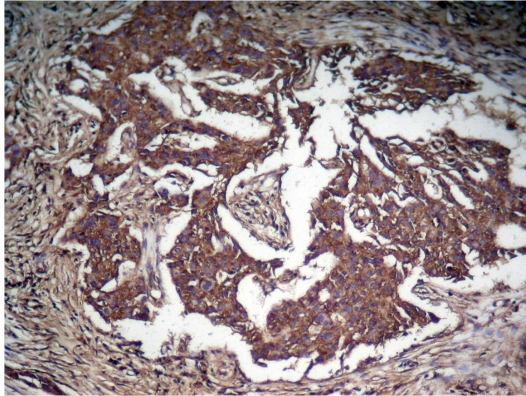
ARG51650 anti-JAK2 phospho (Tyr1007) antibody WB image

Western Blot: extracts from HT29 cells untreated or treated with IL-4 stained with anti-JAK2 (phospho Tyr1007) antibody ARG51650.



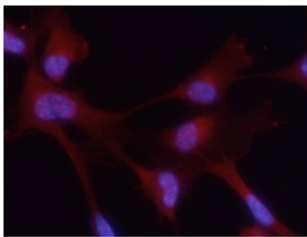
ARG51549 anti-STAT3 phospho (Tyr705) antibody IHC-P image

Immunohistochemistry: paraffin-embedded human breast carcinoma tissue stained with anti-STAT3 (phospho Tyr705) antibody ARG51549 (left) or the same antibody preincubated with blocking peptide (right).

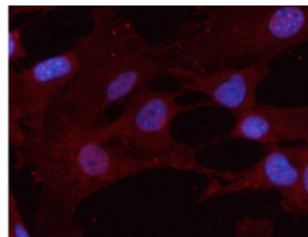


ARG51549 anti-STAT3 phospho (Tyr705) antibody IHC-P image

Immunohistochemistry: paraffin-embedded human Lung carcinoma tissue stained with anti-STAT3 (phospho Tyr705) antibody ARG51549.



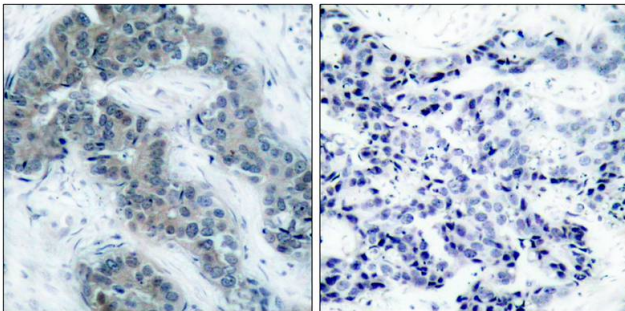
untreated



IFN treated

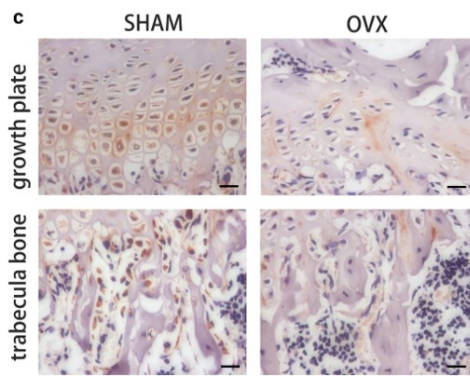
ARG51549 anti-STAT3 phospho (Tyr705) antibody ICC/IF image

Immunofluorescence: methanol-fixed MEF cells untreated or treated with IFN stained with anti-STAT3 (phospho Tyr705) antibody ARG51549.



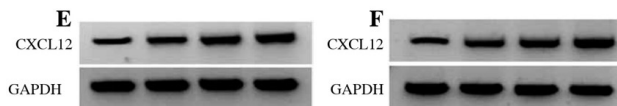
ARG51650 anti-JAK2 phospho (Tyr1007) antibody IHC-P image

Immunohistochemistry: paraffin-embedded human breast carcinoma tissue stained with anti-JAK2 (phospho Tyr1007) antibody ARG51650 (left) or the same antibody preincubated with blocking peptide (right).



ARG65351 Goat anti-Rabbit IgG antibody (HRP) IHC-P image

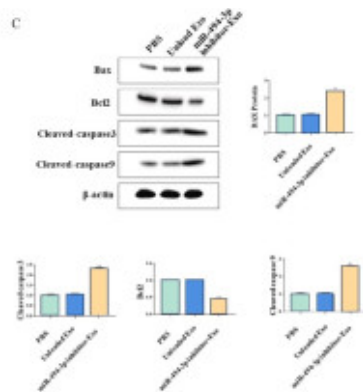
From Yu-Qian Song et al. J Mol Med (Berl) (2022), [doi: 10.1007/s00109-021-02165-0](https://doi.org/10.1007/s00109-021-02165-0), Fig. 5.c.



ARG65351 Goat anti-Rabbit IgG antibody (HRP) WB image

Western blot: HK2 stained with [ARG66421 anti-CXCL12 / SDF1 antibody \[SQab18123\]](#) and [ARG10112 anti-GAPDH antibody \[6C5\]](#) and secondary antibody used ARG65351 Goat anti-Rabbit IgG antibody (HRP).

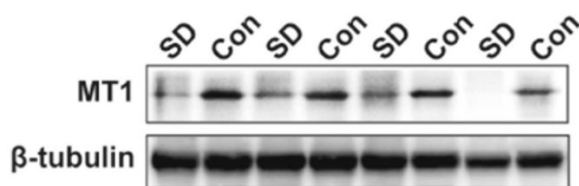
From Zhou Y et al. Central European Journal of Immunology (2022), [doi: 10.5114/ceji.2022.115628](https://doi.org/10.5114/ceji.2022.115628), Fig. 2. E.



ARG65351 Goat anti-Rabbit IgG antibody (HRP) WB image

Western blot: Gastric cancer cells stained with [ARG66247 anti-Bax antibody](#), [ARG55188 anti-Bcl 2 antibody](#), [ARG57512 anti-Caspase 3 \(cleaved\) antibody](#) and [ARG62346 anti-beta Actin antibody \[BA3R\]](#). Secondary Antibody stained with ARG65351 Goat anti-Rabbit IgG antibody (HRP).

From Limin Zhang et al. Heliyon (2024), [doi: 10.1016/j.heliyon.2024.e30803](https://doi.org/10.1016/j.heliyon.2024.e30803), Fig. 4. C.



ARG65351 Goat anti-Rabbit IgG antibody (HRP) WB image

Western blot: Rat placental stained with [ARG57589 anti-MTNR1A antibody](#) at 1:1000 dilution, ARG65351 Goat anti-Rabbit IgG antibody (HRP) at 1:5000 dilution.

From Jinzhi Li et al. J Reprod Immunol. (2023), [doi: 10.1016/j.jri.2023.104166](https://doi.org/10.1016/j.jri.2023.104166), Fig. 2.B.