

# TYK2 Antibody

Catalog # ASC11596

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P29597</a>
<b>Other Accession</b>	<a href="#">NP_003322</a> , <a href="#">187608615</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	133650
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	TYK2 antibody can be used for detection of TYK2 by Western blot at 1 - 2 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	7297
<b>Other Names</b>	Non-receptor tyrosine-protein kinase TYK2, 2.7.10.2, TYK2
<b>Target/Specificity</b>	TYK2; At least three isoforms of TYK2 are known to exist; this antibody only detects the two longest isoforms.
<b>Reconstitution &amp; Storage</b>	TYK2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
<b>Precautions</b>	TYK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TYK2
<b>Function</b>	Tyrosine kinase of the non-receptor type involved in numerous cytokines and interferons signaling, which regulates cell growth, development, cell migration, innate and adaptive immunity (PubMed: <a href="#">10542297</a> , PubMed: <a href="#">10995743</a> , PubMed: <a href="#">7657660</a> , PubMed: <a href="#">7813427</a> , PubMed: <a href="#">8232552</a> ). Plays both structural and catalytic roles in numerous interleukins and interferons (IFN-alpha/beta) signaling (PubMed: <a href="#">10542297</a> ). Associates with heterodimeric cytokine receptor complexes and activates STAT family members including STAT1, STAT3, STAT4 or STAT6 (PubMed: <a href="#">10542297</a> , PubMed: <a href="#">7638186</a> ). The heterodimeric cytokine receptor complexes are composed of (1) a TYK2-associated receptor chain (IFNAR1, IL12RB1, IL10RB or IL13RA1), and (2) a second receptor chain associated either with JAK1 or JAK2 (PubMed: <a href="#">10542297</a> , PubMed: <a href="#">25762719</a> , PubMed: <a href="#">7526154</a> ,

PubMed:[7813427](#)). In response to cytokine-binding to receptors, phosphorylates and activates receptors (IFNAR1, IL12RB1, IL10RB or IL13RA1), creating docking sites for STAT members (PubMed:[7526154](#), PubMed:[7657660](#)). In turn, recruited STATs are phosphorylated by TYK2 (or JAK1/JAK2 on the second receptor chain), form homo- and heterodimers, translocate to the nucleus, and regulate cytokine/growth factor responsive genes (PubMed:[10542297](#), PubMed:[25762719](#), PubMed:[7657660](#)). Negatively regulates STAT3 activity by promoting phosphorylation at a specific tyrosine that differs from the site used for signaling (PubMed:[29162862](#)).

#### Tissue Location

Observed in all cell lines analyzed. Expressed in a variety of lymphoid and non-lymphoid cell lines

## Background

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**TYK2 Antibody:** TYK2 is a member of the Janus kinases (JAKs) protein families. TYK2 associates with the cytoplasmic domain of type I and type II cytokine receptors and promulgate cytokine signals by phosphorylating receptor subunits and is also a component of both the type I and type III interferon signaling pathways. As such, it may play a role in anti-viral immunity. A mutation in this gene has been associated with hyperimmunoglobulin E syndrome (HIES) - a primary immunodeficiency characterized by elevated serum immunoglobulin E.

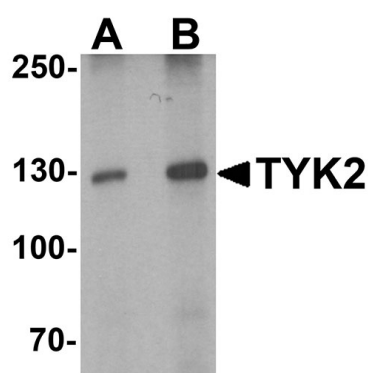
## References

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Strobl B, Stoiber D, Sexl V, et al. Tyrosine kinase 2 (TYK2) in cytokine signalling and host immunity. *Front. Biosci.* 2011; 17:3214-32.

## Images

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Western blot analysis of TYK2 in human small intestine tissue lysate with TYK2 antibody at (A) 1 and (B) 2 µg/mL

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.