

**TYK2 Antibody**  
**Catalog # ASC11596****Specification****TYK2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P29597</a>
Other Accession	<a href="#">NP_003322</a> , <a href="#">187608615</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 131 kDa KDa
Application Notes	TYK2 antibody can be used for detection of TYK2 by Western blot at 1 - 2 µg/mL.

**TYK2 Antibody - Additional Information**Gene ID **7297****Target/Specificity**

TYK2; At least three isoforms of TYK2 are known to exist; this antibody only detects the two longest isoforms.

**Reconstitution & Storage**

TYK2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

TYK2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TYK2 Antibody - Protein Information****Name** TYK2**Function**

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: [10542297](http://www.uniprot.org/citations/10542297), PubMed: [10995743](http://www.uniprot.org/citations/10995743), PubMed: [7657660](http://www.uniprot.org/citations/7657660), PubMed: [7813427](http://www.uniprot.org/citations/7813427), PubMed: [8232552](http://www.uniprot.org/citations/8232552)). Plays both structural and catalytic roles in numerous interleukins and interferons (IFN-alpha/beta) signaling (PubMed: [10542297](http://www.uniprot.org/citations/10542297)). Associates with heterodimeric cytokine receptor complexes and activates STAT family members including STAT1, STAT3, STAT4 or STAT6 (PubMed: [10542297](http://www.uniprot.org/citations/10542297), PubMed: [7638186](http://www.uniprot.org/citations/7638186)). 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="http://www.uniprot.org/citations/10542297" target="\_blank">10542297</a>, PubMed:<a href="http://www.uniprot.org/citations/25762719" target="\_blank">25762719</a>, PubMed:<a href="http://www.uniprot.org/citations/7526154" target="\_blank">7526154</a>, PubMed:<a href="http://www.uniprot.org/citations/7813427" target="\_blank">7813427</a>). In response to cytokine-binding to receptors, phosphorylates and activates receptors (IFNAR1, IL12RB1, IL10RB or IL13RA1), creating docking sites for STAT members (PubMed:<a href="http://www.uniprot.org/citations/7526154" target="\_blank">7526154</a>, PubMed:<a href="http://www.uniprot.org/citations/7657660" target="\_blank">7657660</a>). 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:<a href="http://www.uniprot.org/citations/10542297" target="\_blank">10542297</a>, PubMed:<a href="http://www.uniprot.org/citations/25762719" target="\_blank">25762719</a>, PubMed:<a href="http://www.uniprot.org/citations/7657660" target="\_blank">7657660</a>). Negatively regulates STAT3 activity by promoting phosphorylation at a specific tyrosine that differs from the site used for signaling (PubMed:<a href="http://www.uniprot.org/citations/29162862" target="\_blank">29162862</a>).

### Tissue Location

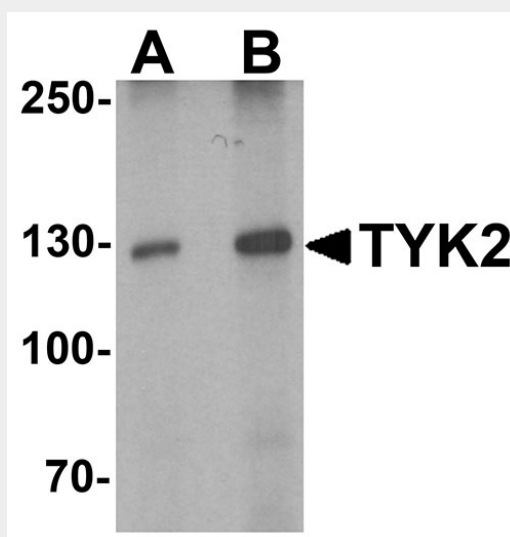
Observed in all cell lines analyzed. Expressed in a variety of lymphoid and non-lymphoid cell lines

### TYK2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### TYK2 Antibody - Images



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

#### **TYK2 Antibody - Background**

**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.

#### **TYK2 Antibody - References**

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