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Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide

Synthetic peptide
Catalog # BP3283a

Specification

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - Product Information

Primary Accession P29597

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - Additional Information

Gene ID 7297

Other Names
Non-receptor tyrosine-protein kinase TYK2, TYK2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP3283a was selected from the region of human Phospho-TyK2-Y1054/1055. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - 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:8232552, PubMed:7813427, PubMed:7657660, PubMed:10995743, PubMed:10542297). Plays both structural and catalytic roles in numerous interleukins and interferons (IFN-alpha/beta) signaling (PubMed:10542297). Associates with heterodimeric cytokine receptor complexes and activates STAT family members including STAT1, STAT3, STAT4 or STAT6 (PubMed:10542297, PubMed:<a

href="http://www.uniprot.org/citations/7638186" target="_blank">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:7813427, PubMed:10542297, PubMed:7526154, PubMed:25762719). 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:7657660, PubMed:10542297, PubMed:25762719). Negatively regulates STAT3 activity by promototing 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

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - Protocols

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

- Blocking Peptides

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - Images

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - Background

TYK2 is likely involved in intracellular signal transduction via involvement in the initiation of type I IFN signaling. TYK2 Phosphorylates the interferon-alpha/beta receptor alpha chain. In animal models TYK2 is an important regulator of lymphoid tumor surveillance.

Phospho-TyK2-Y1054/1055 Antibody Blocking Peptide - References

Lukashova, V., et al., J. Immunol. 171(7):3794-3800 (2003).Kiian, I., et al., Thromb. Haemost. 89(5):904-914 (2003).Ragimbeau, J., et al., EMBO J. 22(3):537-547 (2003).Trask, B., et al., Genomics 15(1):133-145 (1993).Firmbach-Kraft, I., et al., Oncogene 5(9):1329-1336 (1990).