

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human p38 δ . Mouse and rat p38 δ reactivity has not been demonstrated but is likely due to their high homology with human p38 δ . This antibody does not detect recombinant p38 α , p38 β or p38 γ in Western blots.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human p38 δ Accession # O15264
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

The p38 Mitogen-activated Protein Kinases (MAPKs) are a family of four related Ser/Thr kinases activated by proinflammatory cytokines and environmental stresses. All four p38 family members, alpha, beta, gamma, and delta, are phosphorylated by MKK3 and/or MKK6 at dual Thr and Tyr positions within the phosphoacceptor sequence Thr-Gly-Tyr. Once activated, p38 phosphorylates a number of targets, including the nuclear transcription factors ATF2 and Max.

The most frequently analyzed family member, p38 alpha, also known as SAPK2a and MAPK14, was initially purified as a kinase critical to the signaling cascade linking IL-1 to MAPKAPK-2 and the small heat shock protein HSP27. Ubiquitously expressed, p38 alpha is dually phosphorylated by MKK3 and MKK6 at Thr180 and Tyr182. Once activated, p38 alpha phosphorylates a number of targets, including the cytoplasmic kinases MNK 4 and PRAK5 and the nuclear transcription factors ATF2 1 and STAT1. Several promising compounds that inhibit p38 alpha are being investigated as potential therapies for arthritic and inflammatory diseases.

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