

Product datasheet for **TA326349**

p38 (MAPK14) Mouse Monoclonal Antibody [Clone ID: 9F12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	9F12
Applications:	IF, WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Human, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Full length recombinant protein expressed in E.coli cells.
Formulation:	PBS, 50% glycerol
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	mitogen-activated protein kinase 14
Database Link:	NP_001306 Entrez Gene 81649 Rat Entrez Gene 1432 Human Q16539



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Background:

The MAPK (mitogen activated protein kinase) comprises a family of ubiquitous praline-directed, proteinserine/ threonine kinases which signal transduction pathways that control intracellular events including acute responses to hormones and major developmental changes in organisms . This super family consists of stress activated protein kinases (SAPKs); extracellular signal-regulated kinases (ERKs); and p38 kinases, each of which forms a separate pathway . The kinase members that populate each pathway are sequentially activated by phosphorylation. Upon activation, p38 MAPK/SAPK2 translocates into the nucleus where it phosphorylates one or more nuclear substrates, effecting transcriptional changes and other cellular processes involved in cell growth, division, differentiation, inflammation, and death . Specifically p38 always acts as a pro-apoptotic factor with its activation leading to the release of cytochrome c from mitochondria and cleavage of caspase 3 and its downstream effector, PARP . p38 MAPK is activated by a variety of chemical stress inducers including hydrogen peroxide, heavy metals, anisomycin, sodium salicylate, LPS, and biological stress signals such as tumor necrosis factor, interleukin-1, ionizing and UV irradiation, hyperosmotic stress and chemotherapeutic drugs . As a result, p38 alpha has been widely validated as a target for inflammatory disease including rheumatoid arthritis, COPD and psoriasis and has also been implicated in cancer, CNS and diabetes .

Synonyms:

CSBP; CSBP1; CSBP2; CSPB1; EXIP; Mxi2; p38; p38ALPHA; PRKM14; PRKM15; RK; SAPK2A

Note:

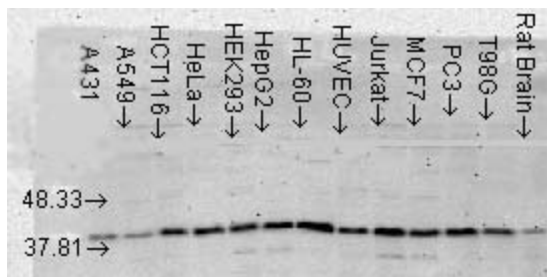
Detects a ~38kDa protein corresponding to the molecular mass of p38a MAPK on SDS PAGE immunoblots.

Protein Families:

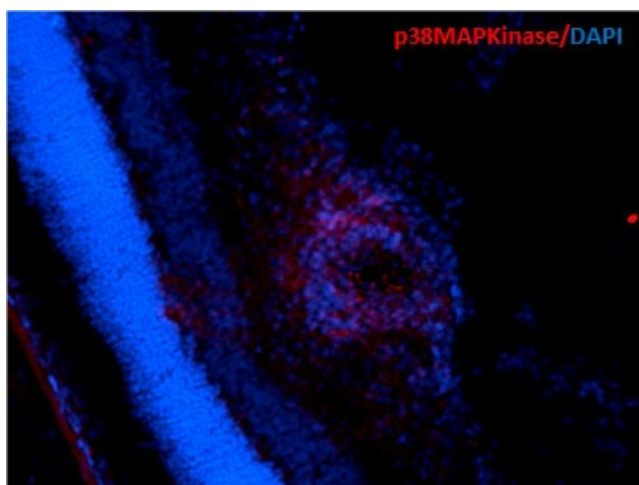
Druggable Genome, Protein Kinase

Protein Pathways:

Amyotrophic lateral sclerosis (ALS), Epithelial cell signaling in Helicobacter pylori infection, Fc epsilon RI signaling pathway, GnRH signaling pathway, Leukocyte transendothelial migration, MAPK signaling pathway, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Progesterone-mediated oocyte maturation, RIG-I-like receptor signaling pathway, T cell receptor signaling pathway, Toll-like receptor signaling pathway, VEGF signaling pathway

Product images:

Multi-blot analysis of p38Alpha MAPKinase in cell lysate from 12 human cancer cell lines using a 1:1000 dilution of the antibody



p38 MAPKinase visualized on a retinal injury model using the antibody