



Anti-DUSP1 monoclonal antibody (DCABH-11338)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen Description The expression of DUSP1 gene is induced in human skin fibroblasts by oxidative/heat stress and growth factors. It specifies a protein with structural features similar to members of the non-receptor-type protein-tyrosine phosphatase family, and which has significant amino-acid sequence similarity to a Tyr/Ser-protein phosphatase encoded by the late gene H1 of vaccinia virus. The bacterially expressed and purified DUSP1 protein has intrinsic phosphatase activity, and specifically inactivates mitogen-activated protein (MAP) kinase in vitro by the concomitant dephosphorylation of both its phosphothreonine and phosphotyrosine residues. Furthermore, it suppresses the activation of MAP kinase by oncogenic ras in extracts of *Xenopus* oocytes. Thus, DUSP1 may play an important role in the human cellular response to environmental stress as well as in the negative regulation of cellular proliferation.

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| Immunogen | A synthetic peptide of human DUSP1 is used for rabbit immunization. |
| Isotype | IgG |
| Source/Host | Rabbit |
| Species Reactivity | Human |
| Purification | Protein A |
| Conjugate | Unconjugated |
| Applications | Western Blot (Transfected lysate); ELISA |
| Buffer | In 1x PBS, pH 7.4 |
| Preservative | None |
| Storage | Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing. |

GENE INFORMATION

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| Gene Name | DUSP1 dual specificity phosphatase 1 [Homo sapiens] |
| Official Symbol | DUSP1 |
| Synonyms | DUSP1; dual specificity phosphatase 1; PTPN10; dual specificity protein phosphatase 1; CL100; HVH1; MKP 1; MAP kinase phosphatase 1; protein-tyrosine phosphatase CL100; dual specificity protein phosphatase hVH1; serine/threonine specific protein phosphatase; mitogen-activated protein kinase phosphatase 1; MKP1; MKP-1; |
| Entrez Gene ID | 1843 |
| Protein Refseq | NP_004408 |
| UniProt ID | B4DU40 |
| Chromosome Location | 5q35.1 |
| Pathway | ATF-2 transcription factor network, organism-specific biosystem; Direct p53 effectors, organism-specific biosystem; EGFR1 Signaling Pathway, organism-specific biosystem; ErbB1 downstream signaling, organism-specific biosystem; Fc-epsilon receptor I signaling in mast cells, organism-specific biosystem; MAPK signaling pathway, organism-specific biosystem; MAPK signaling pathway, organism-specific biosystem; |
| Function | MAP kinase tyrosine/serine/threonine phosphatase activity; hydrolase activity; non-membrane spanning protein tyrosine phosphatase activity; protein binding; protein tyrosine/threonine phosphatase activity; |