MetAP2 (D3I1H) Rabbit mAb





Orders:	877-616-CELL (2355 orders@cellsignal.com
Support:	877-678-TECH (8324
Web:	info@cellsignal.com cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R Mk	Sensitivity: Endogenous	MW (kDa): 63	Source/Isotype: Rabbit IgG	UniProt ID: #P50579	Entrez-Gene Id 10988		
Product Usage Information	9	Application Western Blotting			Dilution 1:1000			
Storage		Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.						
Specificity/Ser	nsitivity	MetAP2 (D3I1H) Rabbit mAb recognizes endogenous levels of total MetAP2 protein. Based upon sequence alignment, this antibody is not predicted to cross-react with MetAP1.						
Species predic based on 100% homology	ted to react 6 sequence	Hamster, Dog, Pig, Ho	orse					
Source / Purifi	cation	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly390 of human MetAP2 protein.						
Background		Eukaryotic initiation f (MetAP2) is one of the terminal initiator met protein synthesis by o bind Erk1/2 to inhibit the cell signaling path having aminopeptida mounting evidence su possesses auto-prote anti-angiogenic drug GlcNAcylation of Met phosphorylation (6).	actor 2 (eIF2)-assoc e three known MetA thionine from nasce controlling the level their activation and hway mediated by E ise activity that rem uggests that MetAP olytic activity that c s, fumagillin and its AP2 plays a major re	iated glycoprotein, p67/μ NPs responsible for the context proteins in cells. Met/ s of eIF2α phosphorylati activity, thus connectin rk1/2 MAP kinases (2-4). oves the N-terminal met 2 has no methionine am an be inhibited by severa derivatives (5). It has also ble in its stability, eIF2α h	methionine aminop p-translational proc AP2 regulates the ra- on (1). MetAP2 has g the protein synth- Although MetAP2 i hionine from nasce inopeptidase activi al small molecule in o been demonstrat pinding, and mainte	eptidase 2 essing of the N- ates of global also been shown to esis machinery with s characterized as nt peptides <i>in vitro</i> , ty. Rather, MetAP2 hibitors including ted that O- enance of eIF2α		
		MetAP2 knockout mice show embryonic lethality, suggesting its role in embryonic development and survival at the initiation of gastrulation (7). It is likely that lowering the levels of MetAP2 in mammalian cells causes cell growth inhibition and leads to apoptosis due to the high levels of eIF2α phosphorylation that inhibits global protein synthesis (8). During pathological or various stress conditions, MetAP2 dissociates from eIF2 subunits possibly due to its deglycosylation-induced autoproteolytic cleavage. As a result, eIF2α becomes hyperphosphorylated and global protein synthesis is inhibited. eIF2 complex-dissociated MetAP2 also displays a higher affinity toward Erk1/2, which results in the blockade of Erk1/2 activity. Thus, MetAP2 mediates cooperation between cell signaling and protein synthesis machinery to regulate cell growth and proliferation during physiological and pathological conditions (9). Research studies have shown higher expression of MetAP2 in human cancers, supporting the contention that MetAP2 plays a role in oncogenesis. For example, investigators have reported high MetAP2 expression of MetAP2 has also been reported in human colorectal adenocarcinomas (11).						
Background R	eferences	1. Datta, B. (2000) <i>Bio</i> 2. Datta, B. et al. (200 3. Datta, B. et al. (200 4. Datta, B. et al. (200 5. Bradshaw, R.A. and 6. Datta, B. et al. (199 7. Yeh, J.R. et al. (200 8. Datta, B. and Datta 9. Ghosh, A. et al. (20) 10. Kanno, T. et al. (20)	ochimie 82, 95-107. 4) Arch Biochem Bid 4) Biochemistry 43, 5) Exp Cell Res 303, 1 Yi, E. (2002) Essays 9) Exp Cell Res 250, 6) Proc Natl Acad Sc 0, R. (1999) Exp Cell . 06) Exp Cell Res 312 002) Lab Invest 82, 8	ophys 427, 68-78. 14821-31. 174-82. <i>Biochem</i> 38, 65-78. 223-30. <i>i U S A</i> 103, 10379-84. <i>Res</i> 246, 376-83. , 3184-203. 393-901.				

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).		
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.		
Applications Key	W: Western Blotting		
Cross-Reactivity Key	H: Human M: Mouse R: Rat Mk: Monkey		
Trademarks and Patents	Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.		
	All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.		
Limited Uses	Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.		
	Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.		