

MAPKAPK-3 (D54E4) Rabbit mAb

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| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| W | H M R Mk Pg | Endogenous | 42 | Rabbit IgG | #Q16644 | 7867 |

Product Usage Information**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/Sensitivity

MAPKAPK-3 (D54E4) Rabbit mAb recognizes endogenous levels of total MAPKAPK-3 protein. This antibody does not cross-react with MAPKAPK-2 or MAPKAPK-5.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro34 of human MAPKAPK-3 protein.

Background

MAPKAPK-3 has a single potential SH3-binding site in the proline-rich amino terminus, a putative ATP-binding site, 2 MAP kinase phosphorylation site motifs, and a putative nuclear localization signal. It shares 72% nucleotide and 75% amino acid identity with MAPKAPK-2 (1). MAPKAPK-3 has been shown to be activated by growth inducers and stress stimulation of cells. *In vitro* studies have demonstrated that Erk, p38 MAP kinase, and Jun amino-terminal kinase are able to phosphorylate and activate MAPKAPK-3, which suggested a role for this kinase as an integrative element of signaling in both mitogen and stress responses (2). MAPKAPK-3 was reported to interact with, phosphorylate, and repress the activity of E47, which is a basic helix-loop-helix transcription factor involved in the regulation of tissue-specific gene expression and cell differentiation (3). MAPKAPK-3 may also support luteal maturation through the phosphorylation and activation of the nuclear transcription factor CREB (4).

Background References

1. Sithanandam, G. et al. (1996) *Mol. Cell Biol.* 16, 868-876.
2. Ludwig, S. et al. (1996) *Mol. Cell Biol.* 16, 6687-6697.
3. Neufeld, B. et al. (2000) *J. Biol. Chem.* 275, 20239-20242.
4. Maizels, E.T. et al. (2001) *Mol. Endocrinol.* 15, 716-733.

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 BSA, 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 **Pg:** Pig

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