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12-4088: Phospho-MKK7 (Ser271/Thr275) (Clone: R4F9) rabbit mAb

Clonality :	Monoclonal
Clone Name :	MKK7S271T275-R4F9
Application :	FACS,WB
Reactivity :	Human, Mouse, Rat
Conjugate :	Unconjugated
Format :	Purified
Alternative Name :	Dual specificity mitogen-activated protein kinase kinase 7, MAP kinase kinase 7, MAPKK 7, JNK-activating kinase 2, MAPK/ERK kinase 7, Stress-activated protein kinase kinase 4, SAPK kinase 4, SAPKK4, c-Jun N-terminal kinase kinase 2, JNK kinase 2, MAP2K7, JNKK2, MEK7, PRKMK7, SKK4
Isotype :	Rabbit IgG1k
Immunogen Information :	A synthetic phospho-peptide corresponding to residues surrounding Ser271/Thr275 of human phospho MKK7

Description

MKK7 is a dual specificity protein kinase which acts as an essential component of the MAP kinase signal transduction pathway. It is an essential component of the stress-activated protein kinase/c-Jun N-terminal kinase (SAP/JNK) signaling pathway. With MAP2K4/MKK4, is the one of the only known kinase to directly activate the stress-activated protein kinase/c-Jun N-terminal kinases MAPK8/JNK1, MAPK9/JNK2 and MAPK10/JNK3. MAP2K4/MKK4 and MAP2K7/MKK7 both activate the JNKs by phosphorylation, but they differ in their preference for the phosphorylation site in the Thr-Pro-Tyr motif. MAP2K4/MKK4 shows preference for phosphorylation of the Tyr residue and MAP2K7/MKK7 for the Thr residue. The monophosphorylation of JNKs on the Thr residue is sufficient to increase JNK activity indicating that phospho MKK7 is important to trigger JNK activity, while the additional phosphorylation of the Tyr residue by MAP2K4/MKK4 ensures optimal JNK activation. Phospho MKK7 has a specific role in JNK signal transduction pathway activated by proinflammatory cytokines. The MKK/JNK signaling pathway is also involved in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis.

Product Info

Amount :	20 µl / 200 µl
Content :	1X PBS, 0.02% NaN3, 50% Glycerol, 0.1% BSA
Storage condition :	Store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

1Ã‚µg/mL - 0.001Ã‚µg/mL. It is recommended that the reagent be titrated for optimal performance for each application. See product image legends for additional information.(0.5mg/ml, more than 200 western blots)

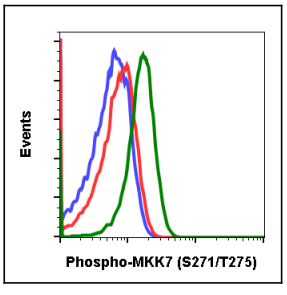

Fig-1: Flow cytometric analysis of C6 cells secondary antibody only negative control (blue) or untreated (red) or treated with EGF (green) using Phospho-MKK7(S271/T275) antibody MKK7S271T275-R4F9 at 0.5 µg/mL.

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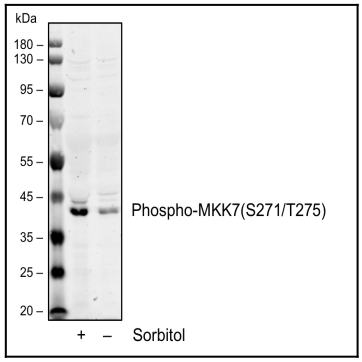

Fig 2 : Western blot analysis of THP1 cell extract untreated or treated with sorbitol using 0.1 µg/mL Phospho-MKK7 (Ser271/Thr275) antibody MKK7S271T275-R4F9.

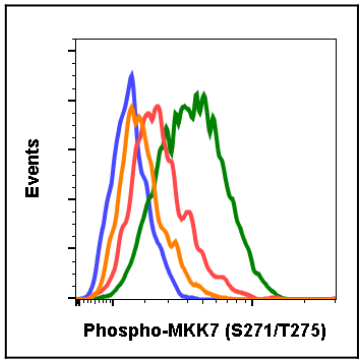

Fig-3: Flow cytometric analysis of C2C12 cells secondary antibody only negative control (blue) or 1 µg/mL of isotype control (orange) or untreated (red) or treated with staurosporine (green) using Phospho-MKK7 (Ser271/Thr275) antibody MKK7S271T275-R4F9 at 1 µg/mL.