3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

ProductInformation

Anti-Phospho-TrkA
(phosphotyrosine 674/675)
Developed in Rabbit,
Affinity Isolated Antibody

Product Number **T9816**

Product Description

Anti-phospho-TrkA (phosphotyrosine 674/675) is developed in rabbit, using a synthetic phospho-Tyr674/675 peptide corresponding to residues around Tyr674/675 of humanTrkA, conjugated to KLH, as immunogen. The antibody is affinity-purified using protein A and peptide affinity chromatography.

Anti-phospho-TrkA (phosphotyrosine 674/675) detects Trk only when activated by phosphorylation at Tyr674/Tyr675. This antibody reacts with rat anti-phospho-TrkA and may be used for immunoblotting and immunoprecipitation.

Anti-phospho-TrkA (phosphotyrosine 674/675) is a high affinity Nerve Growth Factor (NGF). The Trk proto-ongogene family contains four members, TrkA, TrkB, TrkC and TrkE, which are variably expressed throughout the central and peripheral nervous systems. TrkA binds to Nerve Growth Factor (NGF) and autophosphorylates on tyrosine residues (Tyr490, Tyr674, Tyr675, Tyr751 and Tyr785) to activate multiple downstream effector proteins. Phosphorylation at Tyr490 is required for Shc association and subsequent activation of the Ras-MAP kinase signaling cascade which leads to activation of Elk-1-dependent gene transcription and neurite growth. Phosphorylations at Tyr674 and Tyr675 lie within the catalytic domain of TrkA tyrosine kinase and reflect Trk kinase activity. Additionally, phosphorylation at Tyr751 is required for PI3-kinase association and activation of the Akt signaling cascade.

Reagents

Anti-phospho-TrkA (phosphotyrosine 674/675) is supplied as an affinity-isolated antibody in 10 mM sodium HEPES, pH 7.5, containing 150 mM sodium chloride, 100 µg/ml bovine serum albumin and 50% glycerol.

Storage/Stability

Store at –20°C. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Recommended working dilution is 1:750 for immunoblotting (chemiluminescent) using an extract from NGF-treated PC12 cells.
For immunoblotting, incubate membrane with diluted antibody in 5% bovine serum albumin (BSA), 1X Tris buffered saline and 0.1% Tween-20 at 2-8°C with gentle shaking, overnight.

Immunoblotting note: Basal levels of TrkA phosphorylation can be reduced by plating and culturing cells for 2 days in low serum (0.5% FBS) media. Before inducing phosphorylation, incubate cells in serum-free media for 2 hours and then change to fresh serum-free media immediately before treatment.

Recommended working dilution is 1:250 for immunoprecipitation.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working dilution by titration.

References

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