ANTI-Gab-1
Developed in Rabbit, IgG Fraction of Antiserum

Product Number G 9542

Product Description
Anti-Gab-1 (Grb2-Associated Binder-1) is developed in rabbit using as immunogen, a synthetic peptide corresponding to amino acids 675-694 from the C-terminal of human Gab-1 protein. The antibody is purified by Protein A chromatography.

Anti-Gab-1 specifically recognizes Gab-1 protein (90-100 kDa) in human, monkey, mouse, and rat. It may be used for the detection of Gab-1 by immunohistochemistry on frozen or formalin-fixed paraffin-embedded tissues, by immunoprecipitation and by immunoblotting applications.

The insulin receptor substrate (IRS) family of proteins mediate a variety of intracellular signaling events by serving as signaling platforms downstream of several receptor tyrosine kinases including the insulin and insulin-like growth factor-1 (IGF-1) receptors. Gab-1 is a member of the IRS family. It contains a pleckstrin homology domain and potential binding sites for various SH2 and SH3 domains. It is a multisubstrate docking protein downstream in the signaling pathways of various tyrosine kinases.

Gab-1 is tyrosine phosphorylated in response to stimulation of receptors for growth factors and hormones. These include receptors for hepatocyte growth factor/scatter factor (Met receptor), insulin, nerve growth factor, and epidermal growth factor. Gab-1 then recruits multiple SH2 domain containing signal transducing proteins to form a signaling complex. Gab-1 thus plays a crucial role in various cellular processes including growth, transformation and apoptosis. The importance of Gab1 signaling in normal development is demonstrated by the fact that Gab1-deficient mice die in utero.

Cell-cell adhesion also induces marked tyrosine phosphorylation of Gab-1. This process is mediated by E-cadherin, which induces tyrosine phosphorylation by a Src family kinase of Gab-1, thereby regulating the activation of Ras/MAP kinase and phosphatidylinositol 3-kinase/Akt cascades.

Reagent
Anti-Gab-1 is supplied as a solution in phosphate buffered saline, pH 7.4, with 0.08% sodium azide as a preservative.

Precautions and Disclaimer
Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Storage/Stability
Store at –20 °C. Upon initial thawing freeze the solution in working aliquots for extended storage. Avoid repeated freezing and thawing to prevent denaturing the antibody. Do not store in a frost-free freezer. The antibody is stable for at least 12 months when stored appropriately. Working dilutions should be discarded if not used within 12 hours.

Product Profile
A recommended working concentration of 5 to 10 µg/ml is determined by immunoblotting of astrocytoma cells. For optimal results it is recommended to stimulate cells with EGF, immunoprecipitate with Anti-Gab-1 then immunoblot with Anti-phosphotyrosine monoclonal antibody.

The recommended working concentration for immunoprecipitation is 10 µg/mg of protein lysate.

MCF-10A, 293, Cos-7 or astrocytoma cells may be used as positive controls.

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