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Rabbit Anti-Gab1/AP Conjugated antibody

SL2770R-AP

Product Name	Anti-Gab1/AP
Chinese Name	碱性磷酸酶（AP）标记的接头蛋白 Gab 1 抗体
Alias	GRB 2 associated binder 1; GRB 2 associated binding protein 1; GRB2 associated binding protein 1 isoform a; GRB2 associated binding protein 1 isoform bl; Gab 1; Gab1; GAB1_HUMAN; GRB2 associated binder 1; GRB2 associated binding protein 1 isoform b; GRB2-associated binder 1; GRB2-associated-binding protein 1; Growth factor receptor bound protein 2-associated protein 1.
Research Area	Tumour Cell biology Signal transduction Apoptosis Cyclin Kinases and Phosphatases The cell membrane 受体 Cell differentiation
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit)
Applications	WB=1000-10000,IHC-P=1:100-500,IHC-F=1:100-500,ELISA=1:500-5000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	76kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Gab1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	**background:** Growth factor triggering of protein tyrosine kinase receptors induces signals that cascade to the nucleus, activating mitogenic as well as other responses.

Critical components of this process include adapter proteins such as Shc, IRS-1 and Gab 1 (GRB-associated binder-1) that lack detectable catalytic activity (1-3,8). Gab1 can be phosphorylated by multiple receptor tyrosine kinase (RTKs), including: insulin receptor (IR), platelet derived growth factor receptor beta] (PDGFRbeta]), hepatocyte growth factor/scatter factor receptor (HGFR/SFR or c Met), and epidermal growth factor receptor (EGF), as well as in response to cell cell adhesion. Gab1 is tyrosine phosphorylated on at least 16 sites, some of which serve as binding sites for phosphoatidylinositol 3 kinase (PI3K), Grb2, PLC gamma 1, Nck, and SHP2. Phosphorylation of Gab1 on tyrosines 627 and 659 is critical for its binding to SHP2, and for activation of the ERK/MAPK pathway in response to EGF.

Function:
Adapter protein that plays a role in intracellular signaling cascades triggered by activated receptor-type kinases. Plays a role in FGFR1 signaling. Probably involved in signaling by the epidermal growth factor receptor (EGFR) and the insulin receptor (INSR).

Subunit:
Phosphorylated in response to FGFR1 activation. Phosphorylated on tyrosine residue(s) by the epidermal growth factor receptor (EGFR) and the insulin receptor (INSR). Tyrosine phosphorylation of GAB1 mediates interaction with several proteins that contain SH2 domains.

Similarity:
Belongs to the GAB family.
Contains 1 PH domain.

Database links:

Entrez Gene: 2549 Human

Entrez Gene: 14388 Mouse

Entrez Gene: 361388 Rat

Omim: 604439 Human

SwissProt: Q13480 Human

SwissProt: Q9QYY0 Mouse

Unigene: 618456 Human

Unigene: 80720 Human

Unigene: 277409 Mouse

Unigene: 1725 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Gab1 作为一种分布广泛的接头蛋白，几乎能连接所有类型的受体（如酪氨酸激酶受体、G-蛋白偶联受体、cell factor 与抗原受体等，Gab1 蛋白属于接头蛋白 Gab 家族,该家族蛋白因能与生长因子受体 Binding protein2（Grb2）相结合而得名。作为接头蛋白,Gab1 蛋白能被多种受体酪氨酸激酶或非受体酪氨酸激酶激活,接受胞外多种生长因子、cell factor 和一些 T/B 细胞抗原受体的刺激,介导 PI3K/Akt 和 Ras/MAPK 等多条 Signal transduction 途径,具有促进细胞生长、迁移、调节免疫等多种生物学功能,与 Diabetes、Tumour、Cardiovascular 疾病等的发生发展密切相关。