

Dab1 [pY198] Ab, Rabbit poly Antibody

CATALOG NO.: XBP-4083

BACKGROUND:

Disabled 1 (Dab1) is an 80 kDa protein that is encoded by the Disabled-1 gene locus which is mutated in scrambler and yotari mutant mice. Phenotypically, the mutation of this gene produces motor defects and ataxia, disruption of neuronal migration, and severe cerebellar hypoplasia. Dab1 is an intracellular adapter protein that functions in downstream signaling events initiated by the secreted protein reelin. Dab1 contains a phosphotyrosine binding (PTB) domain in the amino terminus. Tyrosine phosphorylation of Dab1 is increased by reelin binding to the Very Low Density Lipoprotein Receptor (VLDLR) and Apolipoprotein E Receptor 2 (ApoER2) through stimulation of Src family kinases (e.g., Fyn). Src family kinase and c-Abl activities are themselves then stimulated by binding to tyrosine phosphorylated Dab1. Dab1 also mediates activation of Akt (PKB) by reelin resulting in inhibition of glycogen synthase kinase 3beta (GSK-3beta) and decreased phosphorylation of the microtubule-associated protein, Tau. Dab1 tyrosine 198 is a major site for reelin-induced Src family kinase-mediated phosphorylation in embryonic neurons.

SPECIFICITY:

Mouse (100% homologous) Dab1. Human, rat and chicken (100%) Dab1 have not been tested, but are expected to react.

SOURCE:

Dab1 antibody was produced against a chemically synthesized phosphopeptide derived from the region of human Dab1 that contains tyrosine 198. The sequence is conserved in mouse, rat and chicken.

Dab1 antibody was purified from rabbit serum by Protein A Sepharose affinity chromatography.

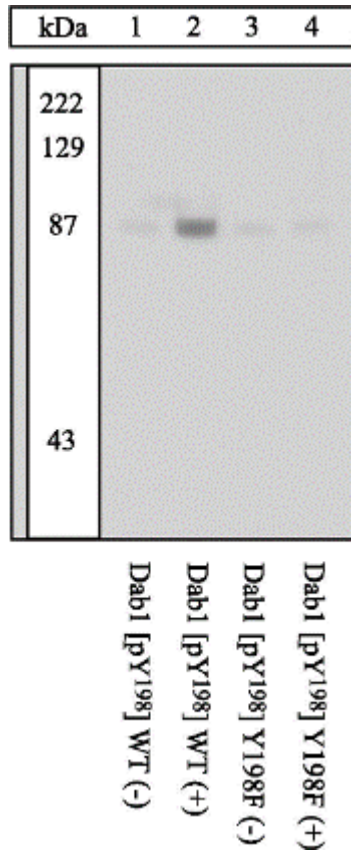
APPLICATION:

For Western blotting applications, we recommend using the antibody at a 1:1000 dilution. **This product is for research use only.**

STORAGE:

Store at -20°C. We recommend a brief centrifugation before opening to settle vial contents. Then, apportion into working aliquots and store at -20°C. For shipment or short-term storage (up to one week), 2-8°C is sufficient.

(07-02D)



Lysates prepared from HEK293 cells transfected with wild type (1, 2) or Y198F mutant mouse Dab1 (3, 4) and left untreated (-) (1, 3) or treated with H₂O₂ (+) (2, 4) were resolved by SDS-PAGE on a 10% polyacrylamide gel and transferred to PVDF. Membranes were blocked with a 5% BSA-TBST buffer overnight at 4°C, and incubated with Dab1 [pY198] antibody for two hours at room temperature in a 3% BSA-TBST buffer. After washing, membranes were incubated with goat F(ab')₂ anti-rabbit IgG HRP conjugate and bands were detected using the Pierce SuperSignal(TM) method. The data show H₂O₂ stimulation of the phospho-Dab1 signal only in wild type Dab1-expressing cells. These results demonstrate the specificity of the Dab1 [pY198] antibody for this site on the Dab1 protein.