

p-Daxx (Ser 213): sc-130187

BACKGROUND

Activation of the cell surface receptor FAS by FAS ligand leads to the initiation of apoptosis, a process necessary for the regulation of the immune system and tissue homeostasis. FAS-mediated apoptosis appears to involve a number of divergent and overlapping pathways. Daxx appears to be a central component of a FAS-mediated apoptotic pathway involving the activation of Jun N-terminal kinase (JNK). Although Daxx itself does not contain a death domain, it specifically binds to the death domain of FAS. Overexpression of Daxx activates the JNK pathway and enhances FAS-mediated apoptosis. The Daxx apoptotic pathway acts cooperatively with but is distinct from the FAS-mediated pathway that involves interactions between the death domain-containing protein FADD and the cysteine protease FLICE. Unlike the FAS-FADD-FLICE pathway, the Daxx pathway is sensitive to the apoptotic inhibitor protein Bcl-2. Upon DNA damage, human Daxx may be phosphorylated at Ser 213.

REFERENCES

- Chinnaiyan, A.M., et al. 1995. FADD, a novel death domain-containing protein, interacts with the death domain of FAS and initiates apoptosis. *Cell* 81: 505-512.
- Hsu, H., et al. 1996. TRADD-TRAF2 and TRADD-FADD interactions define two distinct TNF receptor 1 signal transduction pathways. *Cell* 84: 299-308.
- Fraser, A., et al. 1996. A license to kill. *Cell* 85: 781-784.
- Boldin, M.P., et al. 1996. Involvement of MACH, a novel MORT1/FADD-interacting protease, in FAS/APO-1- and TNF receptor-induced cell death. *Cell* 85: 803-815.
- Nagata, S. 1997. Apoptosis by death factor. *Cell* 88: 355-365.
- Yang, X., et al. 1997. Daxx, a novel FAS-binding protein that activates JNK and apoptosis. *Cell* 89: 1067-1076.
- Goillot, E., et al. 1997. Mitogen-activated protein kinase-mediated FAS apoptotic signaling pathway. *Proc. Natl. Acad. Sci. USA* 94: 3302-3307.
- Kiriakidou, M. et al. 1997. Cloning and expression of primate Daxx cDNAs and mapping of the human gene to chromosome 6p21.3 in the MHC region. *DNA Cell Biol.* 16: 1289-1298.
- Park, J., et al. 2007. Inhibition of NF κ B acetylation and its transcriptional activity by Daxx. *J. Mol. Biol.* 368: 388-397.

CHROMOSOMAL LOCATION

Genetic locus: DAXX (human) mapping to 6p21.32.

SOURCE

p-Daxx (Ser 213) is a rabbit polyclonal antibody raised against a short amino acid sequence containing phosphorylated Ser 213 of Daxx of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

p-Daxx (Ser 213) is recommended for detection of Ser 213 phosphorylated Daxx of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Daxx siRNA (h): sc-35178, Daxx shRNA Plasmid (h): sc-35178-SH and Daxx shRNA (h) Lentiviral Particles: sc-35178-V.

Molecular Weight of p-Daxx: 120 kDa.

Positive Controls: mouse thymus tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-Daxx (Ser 213): sc-130187. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cancer tissue showing cytoplasmic staining.

RESEARCH USE

For research use only, not for use in diagnostic procedures.