Datasheet for ABIN100604

anti-Huntingtin antibody (pSer421)

2 Images

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Overview

Quantity:	100 µg
Target:	Huntingtin (HTT)
Binding Specificity:	pSer421
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Huntingtin antibody is un-conjugated
Application:	Immunohistochemistry (IHC), ELISA, Western Blotting (WB)

Product Details

Purpose:	Huntington phospho S421 Antibody
Immunogen:	Immunogen: Huntingtin pS421 Antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 400-425 of Human Huntington Disease Protein. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This antibody is specific for phosphorylated human Huntington protein at the pS421 residue.
Characteristics:	Synonyms: rabbit anti-Huntington pS421 antibody, rabbit anti-Huntingtin pS421 antibody, HD protein, HTT, Huntington Disease Protein, Huntington disease, IT15, LOMARS
Purification:	Anti-Huntingtin pS421 is an affinity purified antibody produced by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase

Product Details

	adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities.
Sterility:	Sterile filtered

Target Details

Target:	Huntingtin (HTT)
Alternative Name:	HTT (HTT Products)
Background:	Background: Huntingtin (also known as Huntington's disease protein, Htt and HD protein) is the protein product of a disease gene linked to Huntington's disease, a neuro-degenerative disorder characterized by loss of striatal neurons. This may be caused by an expanded, unstable trinucleotide repeat in the huntingtin gene, which translates as a polyglutamine repeat in the protein product (see partial protein sequence below). The huntingtin gene locus is large, spanning 180 kb and consisting of 67 exons. It is expressed as 2 alternatively polyadenylated forms displaying different relative abundance in various fetal and adult tissues. The genetic defect leading to Huntington's disease may not necessarily eliminate transcription, but may confer a new property on the mRNA or alter the function of the protein. One candidate is the huntingtin-associated protein-1, highly expressed in brain, which has increased affinity for huntingtin protein with expanded polyglutamine repeats. Normal huntingtin protein shows a cytoplasmic localization. This protein is widely expressed with the highest level of expression in the brain (nerve fibers, varicosities, and nerve endings). In the brain, the regions where it can be mainly found are the cerebellar cortex, the neocortex, the striatum, and the hippocampal formation.
Gene ID:	3064
NCBI Accession:	NP_002102
UniProt:	P42858
Pathways:	PI3K-Akt Signaling, Hormone Transport, Transition Metal Ion Homeostasis, Tube Formation, Protein targeting to Nucleus, Dicarboxylic Acid Transport

Application Details

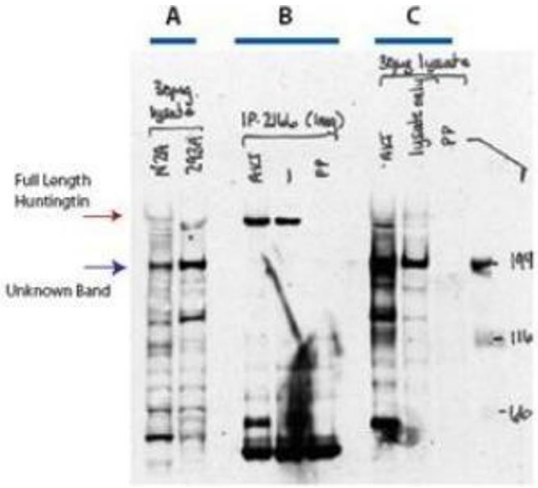
Application Notes:	Immunohistochemistry Dilution: 1:50 - 1:100 Application Note: Anti-Huntingtin pS421 antibody has been tested for use in ELISA, immunohistochemistry, and by western blot. Specific conditions for reactivity should be

Application Details

	optimized by the end user. Expect bands at approximately 350 kDa and 200 kDa in size corresponding to full-length Huntingtin protein and truncated (hypothetical) Huntingtin protein, respectively, by western blotting in the appropriate cell lysate or extract. This antibody is specific for the phosphorylated form of Huntingtin protein at the pS421 residue. The identity of lower molecular bands ~130 kDa is not known. Western Blot Dilution: 1:500 - 1:3,000 ELISA Dilution: 1:10,000 - 1:40,000 Other: User Optimized
Restrictions:	For Research Use only

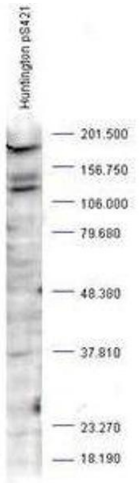
Handling

Format:	Liquid
Concentration:	0.6 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: None Preservative: 0.01 % (w/v) Sodium Azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiry Date:	12 months



Western Blotting

Image 1. Western blot analysis after AKT and phosphatase treatment is shown using Affinity Purified anti-Huntingtin pS421 antibody. In A) untreated lysates from N2A and 293A cells were stained directly using anti-Huntingtin pS421 antibody. Full length staining of Huntingtin is noted, albeit at low levels of expression, as well as a strongly staining band at 200 kDa that may represent staining of truncated protein. In B) staining is shown after immunoprecipitation using a monoclonal antibody (Mab2166) followed by AKT treatment (to phosphorylate), along with untreated, and phosphatase (PP) treated (dephosphorylate) immunopreci-pitated Htt. Full length phosphorylated huntingtin is clearly detected in these immunopurified samples (except dephosphorylated). In C) lysates are treated directly with AKT or PP to alter the phosphorylation status of Htt. Personal communication, Simon Warby, CMMT, Vancouver, BC.



Western Blotting

Image 2. Western blot analysis is shown using Affinity Purified anti-Huntingtin pS421 antibody to detect endogenous protein present in an unstimulated human PC-3 whole cell lysate (arrowhead). Comparison to a molecular weight marker indicates a band of ~190 kDa corresponding to truncated human Huntingtin protein. The blot was incubated with a 1:1,000 dilution of the antibody at room temperature followed by detection using standard techniques. Personal communication,