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Datasheet for ABIN100604  
**anti-Huntingtin antibody (pSer421)**

2 Images

Overview

Quantity:	100 µg
Target:	Huntingtin (HTT)
Binding Specificity:	AA 416-424, pSer421
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Huntingtin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Immunogen:	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding aa 416-424 of Human huntingtin protein.
Isotype:	IgG
Characteristics:	Concentration Definition: by UV absorbance at 280 nm
Sterility:	Sterile filtered

Target Details

Target:	Huntingtin (HTT)
Alternative Name:	Huntington ( <a href="#">HTT Products</a> )
Background:	Huntingtin (also known as Huntington's disease protein, Htt and HD protein) is the protein

## Target Details

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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.

Synonyms: AI256365 antibody, C430023I11Rik antibody, HD antibody, HD protein antibody, HDH antibody, HTT antibody, HUNTINGTON CHOREA antibody, Huntington disease protein antibody, Huntingtin protein antibody, IT15,

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Gene ID: 3064

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UniProt: [P42858](#)

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Pathways: [PI3K-Akt Signaling](#), [Hormone Transport](#), [Transition Metal Ion Homeostasis](#), [Tube Formation](#), [Protein targeting to Nucleus](#), [Dicarboxylic Acid Transport](#)

## Application Details

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

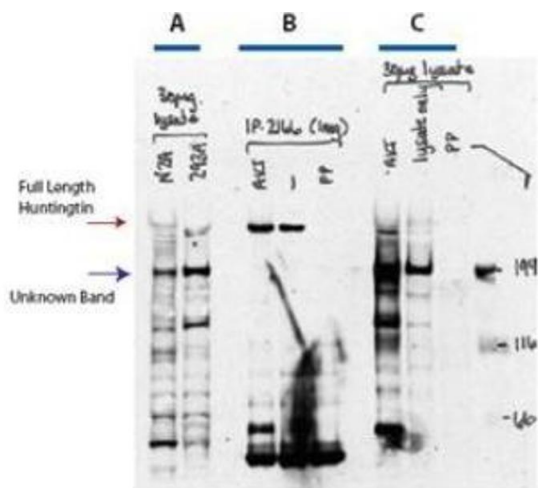
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Restrictions: For Research Use only

## Handling

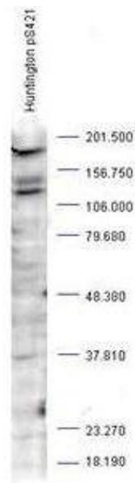
Format:	Liquid
Concentration:	0.6 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C

## Images



### 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) immunoprecipitated 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,