

**Anti-Huntington pS421 (RABBIT) Antibody**  
**Huntington phospho S421 Antibody**  
**Catalog # ASR5225****Specification**

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**Anti-Huntington pS421 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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.
Preservative	0.01% (w/v) Sodium Azide

**Anti-Huntington pS421 (RABBIT) Antibody - Additional Information****Gene ID** 3064**Other Names**  
3064**Purity**

Anti-Huntingtin pS421 is an affinity purified antibody produced by immunoaffinity chromatography using phospho peptide coupled to agarose beads followed by solid phase adsorption(s) against non-phospho peptide and non-specific peptide to remove any unwanted reactivities. This antibody is specific for phosphorylated human Huntington protein at the pS421 residue. BLAST analysis

indicates 100 % homology of the immunizing sequence with Huntington homologues from chimpanzee, pig and chicken. Cross reactivity with Huntington protein homologues from mouse and rat may also occur as sequence homology varies by one amino acid residue in this sequence. Reactivity with Huntington protein from other sources is not known. Minimal reactivity is expected with the non-phosphorylated form of the protein.

**Storage Condition**

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.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-Huntington pS421 (RABBIT) Antibody - Protein Information**

**Name** HTT

**Synonyms** HD, IT15

**Function**

[Huntingtin]: May play a role in microtubule-mediated transport or vesicle function.

**Cellular Location**

[Huntingtin]: Cytoplasm. Nucleus. Early endosome. Note=The mutant Huntingtin protein colocalizes with AKAP8L in the nuclear matrix of Huntington disease neurons. Shuttles between cytoplasm and nucleus in a Ran GTPase- independent manner (PubMed:15654337). Recruits onto early endosomes in a Rab5- and HAP40-dependent fashion (PubMed:16476778)

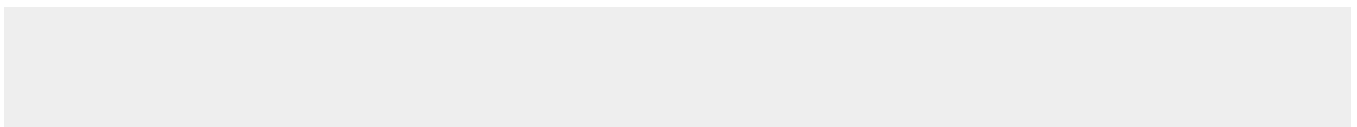
**Tissue Location**

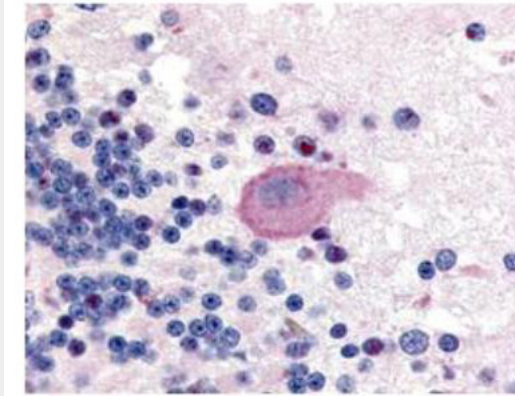
Expressed in the brain cortex (at protein level). Widely expressed with the highest level of expression in the brain (nerve fibers, varicosities, and nerve endings). In the brain, the regions where it can be mainly found are the cerebellar cortex, the neocortex, the striatum, and the hippocampal formation

**Anti-Huntington pS421 (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Huntington pS421 (RABBIT) Antibody - Images**



Rockland's Affinity Purified anti-Huntingtin pS421 antibody was used at a 1:100 dilution to detect phosphorylated Huntingtin by immunohistochemistry in human brain cerebellum. Positive cytoplasmic staining is observed in neurons. Tissue was formalin-fixed and paraffin embedded. Personal Communication,

#### **Anti-Huntington pS421 (RABBIT) Antibody - 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.