

Huntingtin (Phospho Ser421) Rabbit pAb

CatalogNo: YP1000

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- IHC, IF, ELISA

MW

- 348kD (Calculated)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

IHC 1:100-1:300

ELISA 1:5000

IF 1:50-200

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human Huntingtin around the phosphorylation site of Ser421. AA range:387-436

Specificity Phospho-Huntingtin (S421) Polyclonal Antibody detects endogenous levels of Huntingtin protein only when phosphorylated at S421. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):SGsIV

| Target Information

Gene name HTT

Protein Name Huntingtin

Organism	Gene ID	UniProt ID
Human	3064 ;	P42858 ;
Mouse	15194 ;	P42859 ;
Rat		P51111 ;

Cellular Localization

[Huntingtin]: Cytoplasm . Nucleus . Early endosome . 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) . .; [Huntingtin , myristoylated N-terminal fragment]: Cytoplasmic vesicle , autophagosome .

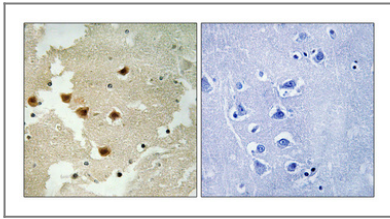
Tissue specificity

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.

Function

Disease:Defects in HTT are the cause of Huntington disease (HD) [MIM:143100]. HD is an autosomal dominant neurodegenerative disorder characterized by involuntary movements (chorea) , general motor impairment , psychiatric disorders and dementia. Onset of the disease occurs usually in the third or fourth decade of life and symptoms progressively worsen leading to death in 10 to 20 years. Onset and clinical course depend on the degree of poly-Gln repeat expansion , longer expansions resulting in earlier onset and more severe clinical manifestations. HD affects 1 in 10 ,000 individuals of European origin. Neuropathology of Huntington disease displays a distinctive pattern with loss of neurons , especially in the caudate and putamen (striatum) . ,Function:May play a role in microtubule-mediated transport or vesicle function. ,online information:Huntingtin entry ,polymorphism:The poly-Gln region of HTT is highly polymorphic (10 to 35 repeats) in the normal population and is expanded to about 36-120 repeats in Huntington disease patients. The repeat length usually increases in successive generations , but contracts also on occasion. The adjacent poly-Pro region is also polymorphic and varies between 7-12 residues. Polyglutamine expansion leads to elevated susceptibility to apopain cleavage and likely result in accelerated neuronal apoptosis. ,PTM:Cleaved by apopain downstream of the polyglutamine stretch. The resulting amino-terminal fragment is cytotoxic and provokes apoptosis. ,PTM:Forms with expanded polyglutamine expansion are specifically ubiquitinated by SYVN1 , which promotes their proteasomal degradation. ,similarity:Belongs to the huntingtin family. ,similarity:Contains 10 HEAT repeats. ,subunit:Binds SH3GLB1 (By similarity) . Interacts through its N-terminus with PRPF40A. Interacts with PQBP1 , SETD2 and SYVN. ,tissue specificity: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. ,

| Validation Data



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100 (4°C overnight). High-pressure and temperature Tris-EDTA, pH 8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

Contact information

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**Huntingtin
(Phospho Ser421)
Rabbit pAb**

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