

## **Product datasheet for AP20329PU-S**

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## 14-3-3 theta (YWHAQ) Rabbit Polyclonal Antibody

**Product data:** 

**Product Type:** Primary Antibodies

**Applications:** IF, IHC, WB

Recommended Dilution: Western Blot: 1/500-1/1000.

Immunofluorescence: 1/50-1/200.

**Immunohistochemistry on Paraffin Sections:** 1/50-1/200.

**Reactivity:** Mouse, Rat

**Host:** Rabbit

Clonality: Polyclonal

**Immunogen:** Synthetic peptide, corresponding to amino acids 200-240 of Human 14-3-3 θ.

**Specificity:** This antibody detects endogenous levels of 14-3-3  $\theta/\tau$  protein.

**Formulation:** Phosphate buffered saline (PBS), pH~7.2

State: Aff - Purified

State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE)

Preservative: 0.05% Sodium Azide

**Concentration:** 1.0 mg/ml

**Purification:** Affinity Chromatography using epitope-specific immunogen

Conjugation: Unconjugated

Storage: Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

**Stability:** Shelf life: one year from despatch.

Predicted Protein Size: ~28 kDa

**Gene Name:** tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein theta

Database Link: Entrez Gene 22630 MouseEntrez Gene 25577 Rat

P27348





#### Background:

It is a member of the 14-3-3 family which consists of 30 kDa proteins that are involved in multiple cell signalling pathways, regulation of cell cycle progression, cytoskeletal structure, transcription, intracellular trafficking and targeting. Protein interactions with 14-3-3 show distinct preferences for it's different isoforms and are regulated by phosphorylation of both 14-3-3 and the bound protein. 14-3-3 tau/theta is primarily expressed in T-cells although it occurs at lower levels in the brain, heart, pancreas placenta and kidneys. It plays a role in cell cycle progression via interaction with p27(Kip1). Along with COPI, the theta isoform binds the GB1 RSR sequence involved in protein trafficking. The isoform forms a complex with Hsp60 and cellular prion protein which may be involved in prion diseases. Elevated levels of 14-3-3 tau/theta are observed in amyotrophic lateral sclerosis. 14-3-3 tau/theta also binds BCR/AbI, bacterial effector protein Tir, yes-associated protein and the FSH receptor.

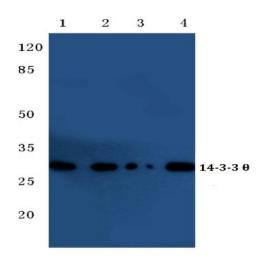
Synonyms: 14-3-3 protein tau, 14-3-3 protein T-cell, YWHAQ, Protein HS1

**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Neurotrophin signaling pathway, Oocyte meiosis, Pathogenic Escherichia coli

infection

### **Product images:**



Western blot analysis of 14-3-3 theta antibody at 1/500 dilution: Lane 1: Hela cell lysate. Lane 2: sp2/0 cell lysate. Lane 3: H9C2 cell lysate.