




## Product datasheet

### Anti-CASK antibody ab244393

[1 References](#) [4 Images](#)

#### Overview

<b>Product name</b>	Anti-CASK antibody
<b>Description</b>	Rabbit polyclonal to CASK
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC/IF, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse, Rat 
<b>Immunogen</b>	Recombinant fragment corresponding to Human CASK aa 250-450. Database link: <a href="#">O70589-3</a>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	ICC/IF: U-251 MG cells. WB: RT4 cell lysate. IHC-P: Human duodenum tissue.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab244393 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 0.25 - 2 µg/ml. Fixation/Permeabilization: PFA/Triton X-100.
WB		Use a concentration of 0.04 - 0.4 µg/ml.
IHC-P		1/20 - 1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

### Function

Multidomain scaffolding protein with a role in synaptic transmembrane protein anchoring and ion channel trafficking. Contributes to neural development and regulation of gene expression via interaction with the transcription factor TRB1. Binds to cell-surface proteins, including amyloid precursor protein, neuroligins and syndecans. May mediate a link between the extracellular matrix and the actin cytoskeleton via its interaction with syndecan and with the actin/spectrin-binding protein 4.1.

### Tissue specificity

Ubiquitous. Expression is significantly greater in brain relative to kidney, lung, and liver and in fetal brain and kidney relative to lung and liver.

### Involvement in disease

Defects in CASK are the cause of mental retardation X-linked CASK-related (MRXCASK) [MIM:300749]. Mental retardation is characterized by significantly below average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. Patients with mental retardation X-linked CASK-related can manifest a severe phenotype consisting of severe intellectual deficit, congenital or postnatal microcephaly, disproportionate brainstem and cerebellar hypoplasia (MICPCH Syndrome). A milder phenotype consists of mental retardation alone or associated with nystagmus.  
Defects in CASK are the cause of FG syndrome type 4 (FGS4) [MIM:300422]. FG syndrome (FGS) is an X-linked disorder characterized by mental retardation, relative macrocephaly, hypotonia and constipation.

### Sequence similarities

In the N-terminal section; belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. CaMK subfamily.  
Belongs to the MAGUK family.  
Contains 1 guanylate kinase-like domain.  
Contains 2 L27 domains.  
Contains 1 PDZ (DHR) domain.  
Contains 1 protein kinase domain.  
Contains 1 SH3 domain.

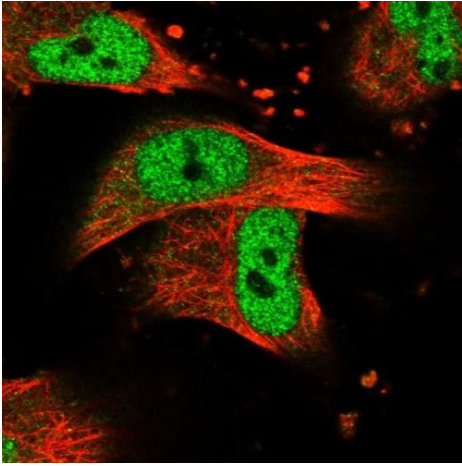
### Domain

The first L27 domain binds DLG1 and the second L27 domain probably binds LIN7.  
The protein kinase domain mediates the interaction with FCHSD2.

### Cellular localization

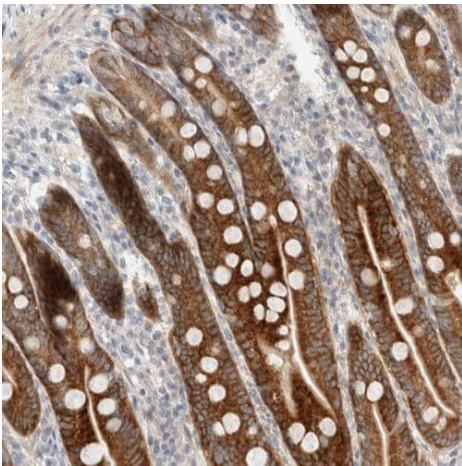
Nucleus. Cytoplasm. Cell membrane.

## Images



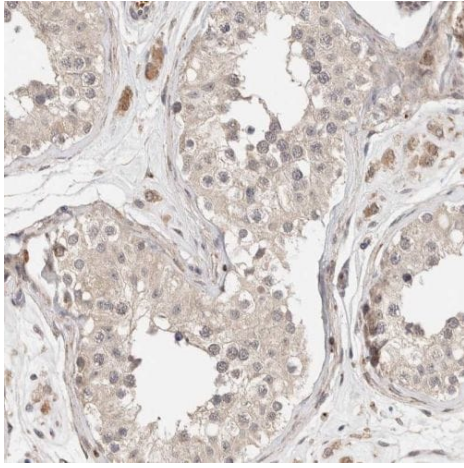
PFA-fixed, Triton X-100 permeabilized U-251 MG (human brain glioma cell line) cells stained for CASK (green) using ab244393 at 4 µg/ml in ICC/IF.

Immunocytochemistry/ Immunofluorescence - Anti-CASK antibody (ab244393)



Paraffin-embedded human duodenum tissue stained for CASK using ab244393 at 1/20 dilution in immunohistochemical analysis.

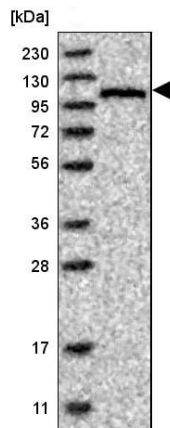
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CASK antibody (ab244393)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CASK antibody (ab244393)

Paraffin-embedded human testis tissue stained for CASK using ab244393 at 1/20 dilution in immunohistochemical analysis.

Low expression as expected.



Western blot - Anti-CASK antibody (ab244393)

Anti-CASK antibody (ab244393) at 0.4 µg/ml + RT4 (Human urinary bladder cancer cell line) cell lysate

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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