abcam

Product datasheet

Recombinant human Caspase-10/CASP-10 protein ab52080

Description

Product name	Recombinant human Caspase-10/CASP-10 protein
Biological activity	SPECIFIC ACTIVITY: 8000 units/mg One unit of the recombinant caspase-10/a (CASP-10) is the enzyme activity that cleaves 1 nmol of the caspase substrate lETD-pNA (pNA: pnitroanaline) per hour at 37^{o}C.
Purity	> 90 % SDS-PAGE.
Expression system	Escherichia coli
Accession	Q92851
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human

Specifications

Our Abpromise guarantee covers the use of **ab52080** in the following tested applications.

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

Applications	SDS-PAGE Functional Studies
Form	Lyophilized
Additional notes	Previously labelled as Caspase-10.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle. Constituents: PBS, 15% Glycerol This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Reconstitute to 1 unit per µl in PBS containing 15% glycerol. Following reconstitution in PBS and 15% glycerol, the enzyme should be aliquoted and immediately stored at –70^{o}C. Avoid multiple

freeze/thaw cycles as activity might decrease.

General Info

Function	Involved in the activation cascade of caspases responsible for apoptosis execution. Recruited to both Fas- and TNFR-1 receptors in a FADD dependent manner. May participate in the granzyme B apoptotic pathways. Cleaves and activates caspase-3, -4, -6, -7, -8, and -9. Hydrolyzes the small- molecule substrates, Tyr-Val-Ala-Asp- -AMC and Asp-Glu-Val-Asp- -AMC. Isoform C is proteolytically inactive.
Tissue specificity	Detectable in most tissues. Lowest expression is seen in brain, kidney, prostate, testis and colon.
Involvement in disease	Defects in CASP10 are the cause of autoimmune lymphoproliferative syndrome type 2A (ALPS2A) [MIM:603909]. ALPS2 is characterized by abnormal lymphocyte and dendritic cell homeostasis and immune regulatory defects. Defects in CASP10 are a cause of familial non-Hodgkin lymphoma (NHL) [MIM:605027]. NHL is a cancer that starts in cells of the lymph system, which is part of the body's immune system. NHLs can occur at any age and are often marked by enlarged lymph nodes, fever and weight loss. Defects in CASP10 are a cause of gastric cancer (GASC) [MIM:613659]. A malignant disease which starts in the stomach, can spread to the esophagus or the small intestine, and can extend through the stomach wall to nearby lymph nodes and organs. It also can metastasize to other parts of the body. The term gastric cancer or gastric carcinoma refers to adenocarcinoma of the stomach that accounts for most of all gastric malignant tumors. Two main histologic types are recognized, diffuse type and intestinal type carcinomas. Diffuse tumors are poorly differentiated infiltrating lesions resulting in thickening of the stomach. In contrast, intestinal tumors are usually exophytic, often ulcerating, and associated with intestinal metaplasia of the stomach, most often observed in sporadic disease.
Sequence similarities	Belongs to the peptidase C14A family. Contains 2 DED (death effector) domains.
Post-translational modifications	Cleavage by granzyme B and autocatalytic activity generate the two active subunits. Phosphorylated upon DNA damage, probably by ATM or ATR.

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