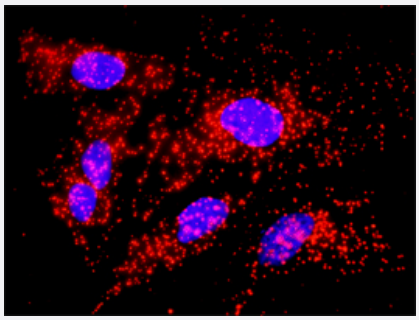
CALR & APP Protein Protein Interaction Antibody Pair

Catalog # DI0055 Size 1 Set

Applications



Representative image of Proximity Ligation Assay of protein-protein interactions between CALR and APP. HeLa cells were stained with anti-CALR rabbit purified polyclonal antibody 1:1200 and anti-APP mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.

Specification

Product Description	This protein protein interaction antibody pair set comes with two antibodies to detect the protein-protein interaction, one against the CALR protein, and the other against the APP protein for use in *in situ* Proximity Ligation Assay. See Publication Reference below.
Reactivity	Human
Quality Control Testing	Protein protein interaction immunofluorescence result. Representative image of Proximity Ligation Assay of protein-protein interactions between CALR and APP. HeLa cells were stained with anti-CALR rabbit purified polyclonal antibody 1:1200 and anti-APP mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex. The images were analyzed using an optimized freeware (BlobFinder) download from The Centre for Image Analysis at Uppsala University.
Supplied Product	Antibody pair set content: 1. CALR rabbit purified polyclonal antibody (100 ug) 2. APP mouse monoclonal antibody (40 ug) *Reagents are sufficient for at least 30-50 assays using recommended protocols.
Storage Instruction	Store reagents of the antibody pair set at -20°C or lower. Please aliquot to avoid repeated freeze thaw cycle. Reagents should be returned to -20°C storage immediately after use.

Applications

- *In situ* Proximity Ligation Assay (Cell)

Gene Info — APP

Entrez GeneID	351
Gene Name	APP
Gene Alias	AAA, ABETA, ABPP, AD1, APPI, CTFgamma, CVAP, PN2
Gene Description	amyloid beta (A4) precursor protein
Omim ID	104760 605714
Gene Ontology	Hyperlink
Gene Summary	This gene encodes a cell surface receptor and transmembrane precursor protein that is cleaved by secretases to form a number of peptides. Some of these peptides are secreted and can bind to the acetyltransferase complex APBB1/TIP60 to promote transcriptional activation, while others form the protein basis of the amyloid plaques found in the brains of patients with Alzheimer disease. Mutations in this gene have been implicated in autosomal dominant Alzheimer disease and cerebroarterial amyloidosis (cerebral amyloid angiopathy). Multiple transcript variants encoding several different isoforms have been found for this gene. [provided by RefSeq
Other Designations	A4 amyloid protein|amyloid beta A4 protein|amyloid-beta protein|beta-amyloid peptide|cerebral vascular amyloid peptide|peptidase nexin-II|protease nexin-II

Gene Info — CALR

Entrez GeneID	811
Gene Name	CALR
Gene Alias	CRT, FLJ26680, RO, SSA, cC1qR
Gene Description	calreticulin
Omim ID	109091
Gene Ontology	Hyperlink

Gene Summary	Calreticulin is a multifunctional protein that acts as a major Ca(2+)-binding (storage) protein in the lumen of the endoplasmic reticulum. It is also found in the nucleus, suggesting that it may have a r ole in transcription regulation. Calreticulin binds to the synthetic peptide KLGFFKR, which is almo st identical to an amino acid sequence in the DNA-binding domain of the superfamily of nuclear re ceptors. Calreticulin binds to antibodies in certain sera of systemic lupus and Sjogren patients wh ich contain anti-Ro/SSA antibodies, it is highly conserved among species, and it is located in the endoplasmic and sarcoplasmic reticulum where it may bind calcium. The amino terminus of calret iculin interacts with the DNA-binding domain of the glucocorticoid receptor and prevents the rece ptor from binding to its specific glucocorticoid response element. Calreticulin can inhibit the bindi ng of androgen receptor to its hormone-responsive DNA element and can inhibit androgen recept or and retinoic acid receptor transcriptional activities in vivo, as well as retinoic acid-induced neur onal differentiation. Thus, calreticulin can act as an important modulator of the regulation of gene tr anscription by nuclear hormone receptors. Systemic lupus erythematosus is associated with incre ased autoantibody titers against calreticulin but calreticulin is not a Ro/SS-A antigen. Earlier pape rs referred to calreticulin as an Ro/SS-A antigen but this was later disproven. Increased autoantib ody titer against human calreticulin is found in infants with complete congenital heart block of both the IgG and IgM classes. [provided by RefSeq
Other Designations	Sicca syndrome antigen A (autoantigen Ro; calreticulin)|autoantigen Ro

Pathway

- Antigen processing and presentation

Disease

- Alzheimer disease
- Amyloidosis
- Cardiovascular Diseases
- Cardiovascular Diseases
- Celiac Disease
- Cerebral Hemorrhage
- Cerebrovascular Disorders
- Cognition
- Cognition Disorders
- Dementia
- Diabetes Mellitus

- Diabetes Mellitus
- Disease Progression
- Disease Susceptibility
- Down Syndrome
- Edema
- Edema
- Genetic Predisposition to Disease
- Headache
- Macular Degeneration
- Mental Status Schedule
- Neuropsychological Tests
- Psychiatric Status Rating Scales
- Recurrence
- Tobacco Use Disorder
- Tourette Syndrome