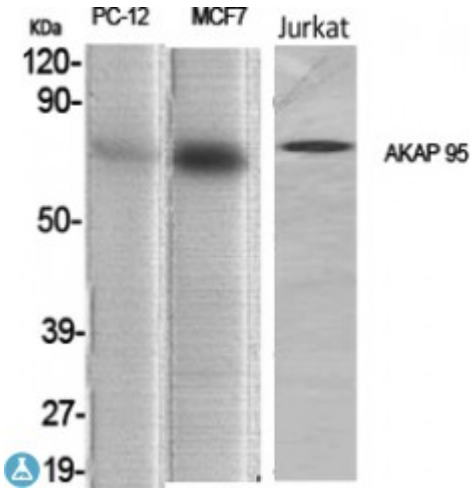
Anti-AKAP 95 antibody



Description	Rabbit polyclonal to AKAP 95.

Model	STJ91533
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human AKAP 95
Immunogen Region	300-380 aa, Internal
Gene ID	10270
Gene Symbol	AKAP8
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	AKAP 95 Polyclonal Antibody detects endogenous levels of AKAP 95 protein.
Tissue Specificity	Highly expressed in heart, liver, skeletal muscle, kidney and pancreas. Expressed in mature dendritic cells.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	A-kinase anchor protein 8 AKAP-8 A-kinase anchor protein 95 kDa AKAP 95
Molecular Weight	76 kDa
Clonality	Polyclonal

Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:378OMIM:604692
Alternative Names	A-kinase anchor protein 8 AKAP-8 A-kinase anchor protein 95 kDa AKAP 95
Function	Anchoring protein that mediates the subcellular compartmentation of cAMP-dependent protein kinase (PKA type II) . Acts as an anchor for a PKA-signaling complex onto mitotic chromosomes, which is required for maintenance of chromosomes in a condensed form throughout mitosis. Recruits condensin complex subunit NCAPD2 to chromosomes required for chromatin condensation; the function appears to be independent from PKA-anchoring . May help to deliver cyclin D/E to CDK4 to facilitate cell cycle progression . Required for cell cycle G2/M transition and histone deacetylation during mitosis. In mitotic cells recruits HDAC3 to the vicinity of chromatin leading to deacetylation and subsequent phosphorylation at 'Ser-10' of histone H3; in this function may act redundantly with AKAP8L . Involved in nuclear retention of RPS6KA1 upon ERK activation thus inducing cell proliferation . May be involved in regulation of DNA replication by acting as scaffold for MCM2 . Enhances HMT activity of the KMT2 family MLL4/WBP7 complex and is involved in transcriptional regulation. In a teratocarcinoma cell line is involved in retinoic acid-mediated induction of developmental genes implicating H3 'Lys-4' methylation . May be involved in recruitment of active CASP3 to the nucleus in apoptotic cells . May act as a carrier protein of GJA1 for its transport to the nucleus . Seems to involved in modulation of rDNA transcription. Preferentially binds GC-rich DNA in vitro and associates to GC-rich ribosomal RNA promoters . Involved in modulation of Toll-like receptor signaling. Required for the cAMP-dependent suppression of TNF-alpha in early stages of LPS-induced macrophage activation; the function probably implicates targeting of PKA to NFKB1 .
Cellular Localization	Nucleus Nucleus matrix Nucleus, nucleolus Cytoplasm. Associated with the nuclear matrix in interphase and redistributes mostly to chromatin at mitosis. However, mitotic chromatin localization has been questioned. Upon nuclear reassembly at the end of mitosis, is sequestered into the daughter nuclei where it re-acquires an interphase distribution. Localized to the nucleolus in interphase. Colocalizes with GJA1 at the nuclear membrane specifically during cell cycle G1/S phase.
Post-translational Modifications	Phosphorylated on tyrosine residues probably by SRC subfamily protein kinases; multiple phosphorylation is leading to dissociation from nuclear structures implicated in chromatin structural changes.