

Human sICAM-1 ELISA Kit | sICAM-1 elisa kit

Human sICAM-1 ELISA KIT

CATALOG #
AAA309876

REACTIVITY
Human

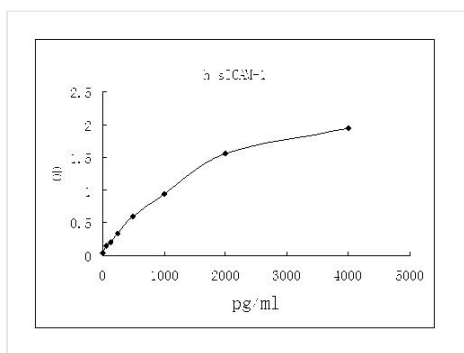
PRODUCT SYNONYMS

sICAM-1; Human sICAM-1 ELISA KIT; Human sICAM-1; sICAM-1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	Natural and recombinant Human sICAM-1 Ligand
Assay Type	Solid Phase Sandwich ELISA
Samples	Cell culture supernatant, serum, plasma (EDTA, citrate, heparin)
Detection Range	62.5-4000pg/mL
Sensitivity	31pg/mL
Assay Time	3 hours
Sample Volume	20 uL
Detection Method	Colorimetric
Preparation and Storage	Store at 4 degree C

IMAGES



Standard Curve (Sample)

Representative standard curve for sICAM-1 ELISA. sICAM-1 was diluted in serial two-fold steps in Sample Diluent.

ADDITIONAL INFORMATION

Related Product Information for sICAM-1 elisa kit	Intercellular Adhesion Molecule 1 (ICAM-1), also known as CD54, is a nearly ubiquitous transmembrane glycoprotein that plays a key role in leukocyte migration and activation (1, 2). Human ICAM-1 contains five Ig-like domains in its extracellular domain (ECD) and associates into non-covalently linked dimers (3, 4). Soluble forms of monomeric and dimeric ICAM-1 (sICAM-1) can be generated via proteolytic cleavage by cathepsin G, elastase, MMP-9, MMP-14/MT1-MMP, and TACE/ADAM17 (5 - 8). In the mouse, alternate splicing generates isoforms that lack particular Ig-like domains and are differentially sensitive to proteolysis (5). Within the ECD, human ICAM-1 shares 53% amino acid sequence identity with mouse and rat ICAM-1. The principal binding partners of ICAM-1 are the leukocyte integrins LFA-1 (CD11a/CD18) and Mac-1 (CD11b/CD18) (9 - 11). The multivalency of dimeric ICAM-1 increases its strength of interaction with LFA-1 (9, 10). ICAM-1 also binds several non-integrin ligands including CD43/sialophorin, fibrinogen, hyaluronan, rhinoviruses, and Plasmodium falciparum-infected erythrocytes (12 - 16). At sites of inflammation, ICAM-1 is upregulated on endothelial and epithelial cells where it mediates the adhesion and paracellular migration of leukocytes expressing activated LFA-1 and Mac-1 (17 - 20). ICAM-1 ligation prolongs antigen presentation by dendritic cells and promotes T cell proliferation and cytokine release (21 - 23). ICAM-1 activation also participates in angiogenesis, wound healing, and bone metabolism (24 - 26). Soluble ICAM-1 has been reported in serum, cerebrospinal fluid, urine, and bronchoalveolar lavage fluid (2, 27 - 31). Elevated levels of sICAM-1 in these fluids are associated with cardiovascular disease, type 2 diabetes, organ transplant dysfunction, oxidant stress, abdominal fat mass, hypertension, liver disease, and certain malignancies (32 - 40). sICAM-1 promotes angiogenesis and serves as an indicator of vascular endothelial cell activation or damage (41, 42). It also functions as an inhibitor of transmembrane ICAM-1 mediated activities such as monocyte adhesion to activated endothelial cells and sensitivity of tumor cells to NK cell-mediated lysis (7, 8).
---	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	1836075
NCBI GeneID	3383
Molecular Weight	57,825 Da
NCBI Official Full Name	sICAM-1, partial
NCBI Official Synonym Full Names	intercellular adhesion molecule 1
NCBI Official Symbol	ICAM1
NCBI Official Synonym Symbols	BB2; CD54; P3.58
NCBI Protein Information	intercellular adhesion molecule 1
UniProt Protein Name	Intercellular adhesion molecule 1
UniProt Gene Name	ICAM1
UniProt Synonym Gene Names	ICAM-1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.