

# Recombinant human MICA protein (Active) ab182709

[2 Images](#)

### Description

<b>Product name</b>	Recombinant human MICA protein (Active)	
<b>Biological activity</b>	Immobilized Recombinant Human NKG2D Fc Chimera Protein at 2 µg/mL (100 µL/well) can bind Recombinant human MICA protein (ab182709) with a linear range of 1-20 ng/mL.	
<b>Purity</b>	> 95 % SDS-PAGE.	
<b>Endotoxin level</b>	< 1.000 Eu/µg	
<b>Expression system</b>	HEK 293 cells	
<b>Accession</b>	<b><u>Q29983</u></b>	
<b>Protein length</b>	Protein fragment	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	EPHSLRYNLTVLSWDGSGFLTEVHLDGQPFLRCDRQ KCR AKPQQQWA EDVLGNKTWDRETRDLTGNGKDLRMTLAHIKDQKEGLHS LQEIRVCEIHE DNSTRSSQHFYYDGELFLSQNLETKEWTMPQSSRAQTLA MNVRNFLKEDA MKTKTHYHAMHADCLQELRRYLKSGVVLRR TVPPMVNVTRSEASEGNI TVTCRASGFYPWNITLSWRQDGVSLSHDTQQWGDVLPD GNGTYQTWVATR ICQGEEQRFTCYMEHSGNHSTHPVPSGKVLVLQSHWQ	
<b>Predicted molecular weight</b>	34 kDa including tags	
<b>Amino acids</b>	24 to 308	
<b>Tags</b>	His tag C-Terminus	
<b>Additional sequence information</b>	NP_000238	

### Specifications

Our **Abpromise guarantee** covers the use of **ab182709** in the following tested applications.

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

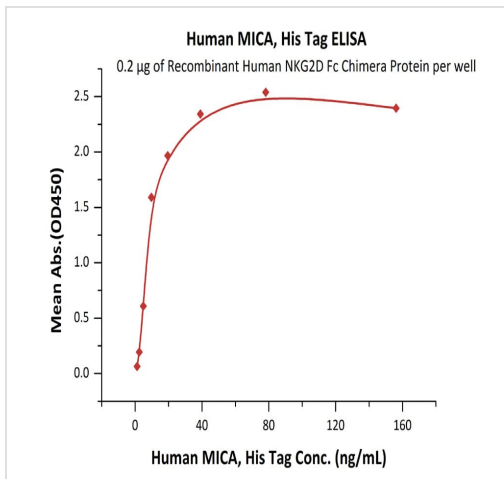
<b>Applications</b>	ELISA SDS-PAGE
<b>Form</b>	Lyophilized
<b>Preparation and Storage</b>	
<b>Stability and Storage</b>	Shipped at 4°C. Store at 4°C prior to reconstitution. Store at -20°C or -80°C. Avoid freeze / thaw cycle. For long term storage it is recommended to add a carrier protein on reconstitution (0.1% HSA or BSA).  pH: 7.40 Constituents: PBS, 5% Trehalose  This product is an active protein and may elicit a biological response in vivo, handle with caution.
<b>Reconstitution</b>	Reconstitute with sterile deionized water to a concentration of 200 µg/ml.
<b>General Info</b>	
<b>Function</b>	Seems to have no role in antigen presentation. Acts as a stress-induced self-antigen that is recognized by gamma delta T-cells. Ligand for the KLRK1/NKG2D receptor. Binding to KLRK1 leads to cell lysis.
<b>Tissue specificity</b>	Widely expressed with the exception of the central nervous system where it is absent. Expressed predominantly in gastric epithelium and also in monocytes, keratinocytes, endothelial cells, fibroblasts and in the outer layer of Hassal's corpuscles within the medulla of normal thymus. In skin, expressed mainly in the keratin layers, basal cells, ducts and follicles. Also expressed in many, but not all, epithelial tumors of lung, breast, kidney, ovary, prostate and colon. In thymomas, overexpressed in cortical and medullar epithelial cells. Tumors expressing MICA display increased levels of gamma delta T cells.
<b>Involvement in disease</b>	Note=Anti-MICA antibodies and ligand shedding are involved in the progression of monoclonal gammopathy of undetermined significance (MGUS) to multiple myeloma. Genetic variations in MICA may be a cause of susceptibility to psoriasis type 1 (PSORS1) [MIM:177900]. Psoriasis is a common, chronic inflammatory disease of the skin with multifactorial etiology. It is characterized by red, scaly plaques usually found on the scalp, elbows and knees. These lesions are caused by abnormal keratinocyte proliferation and infiltration of inflammatory cells into the dermis and epidermis. Genetic variation in MICA is a cause of susceptibility to psoriatic arthritis (PSORAS) [MIM:607507]. PSORAS is an inflammatory, seronegative arthritis associated with psoriasis. It is a heterogeneous disorder ranging from a mild, non-destructive disease to a severe, progressive, erosive arthropathy. Five types of psoriatic arthritis have been defined: asymmetrical oligoarthritis characterized by primary involvement of the small joints of the fingers or toes; asymmetrical arthritis which involves the joints of the extremities; symmetrical polyarthritis characterized by a rheumatoidlike pattern that can involve hands, wrists, ankles, and feet; arthritis mutilans, which is a rare but deforming and destructive condition; arthritis of the sacroiliac joints and spine (psoriatic spondylitis).
<b>Sequence similarities</b>	Belongs to the MHC class I family. MIC subfamily. Contains 1 Ig-like C1-type (immunoglobulin-like) domain.
<b>Post-translational modifications</b>	N-glycosylated. Glycosylation is not essential for interaction with KLRK1/NKG2D but enhances complex formation.

Proteolytically cleaved and released from the cell surface of tumor cells which impairs KLRK1/NKG2D expression and T-cell activation.

## Cellular localization

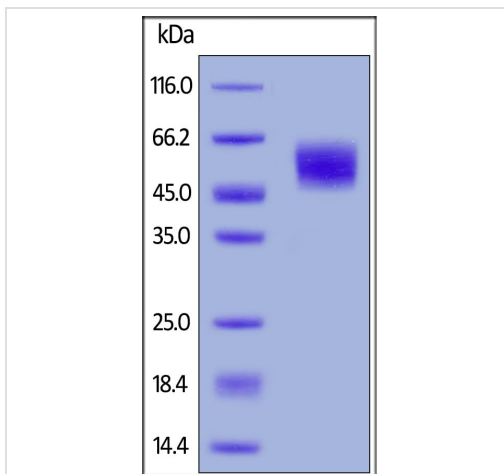
Cell membrane. Cytoplasm. Expressed on the cell surface in gastric epithelium, endothelial cells and fibroblasts and in the cytoplasm in keratinocytes and monocytes. Infection with human adenovirus 5 suppresses cell surface expression due to the adenoviral E3-19K protein which causes retention in the endoplasmic reticulum.

## Images



Immobilized Recombinant Human NKG2D Fc Chimera Protein at 2 µg/mL (100 µL/well) can bind Recombinant human MICA protein (ab182709) with a linear range of 1-20 ng/mL.

SDS-PAGE - Recombinant Human MICA protein (ab182709)



SDS-PAGE of reduced ab182709 stained overnight with Coomassie Blue. The protein migrates as 45-66 kDa due to glycosylation.

SDS-PAGE - Recombinant Human MICA protein (ab182709)

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

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