

Synonym

TACTILE

Source

Human CD96 (C110S), His Tag (TAE-H52H0) is expressed from human 293 cells (HEK293). It contains AA Val 22 - Met 503 (Accession # [P40200-2](#)(C110S)).

Predicted N-terminus: Val 22

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 55.4 kDa. The protein migrates as 85-150 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

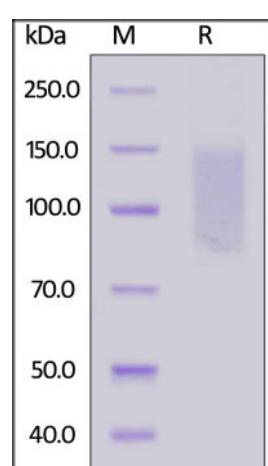
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

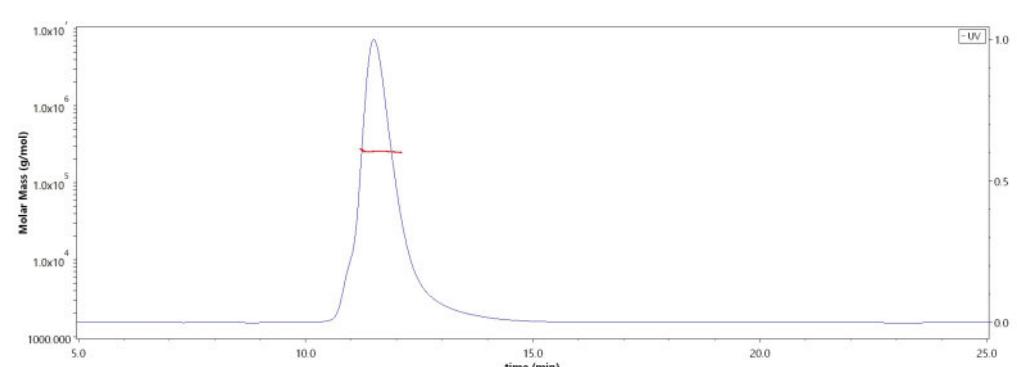
Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

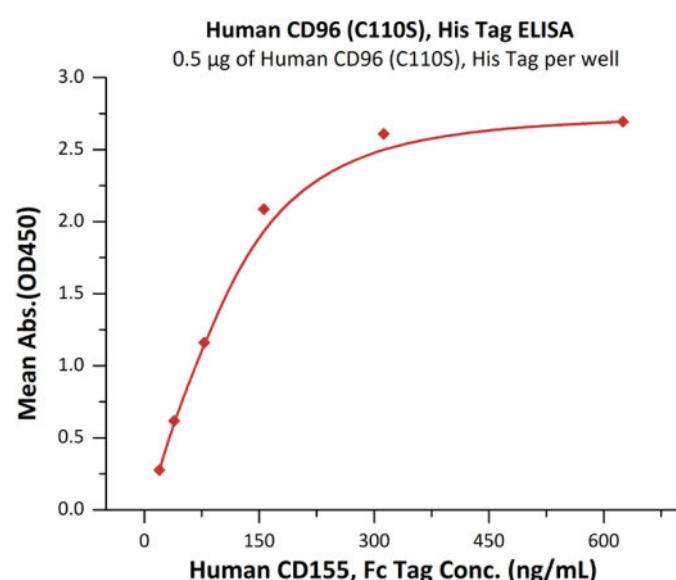
Human CD96 (C110S), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS

The purity of Human CD96 (C110S), His Tag (Cat. No. TAE-H52H0) is more than 85% and the molecular weight of this protein is around 235-270 kDa verified by SEC-MALS.

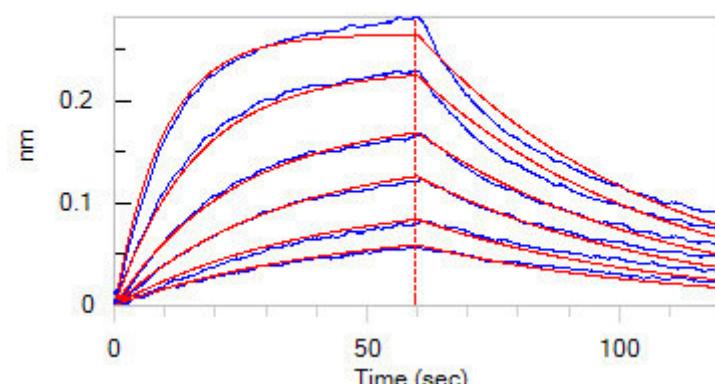
[Report](#)

Bioactivity-ELISA



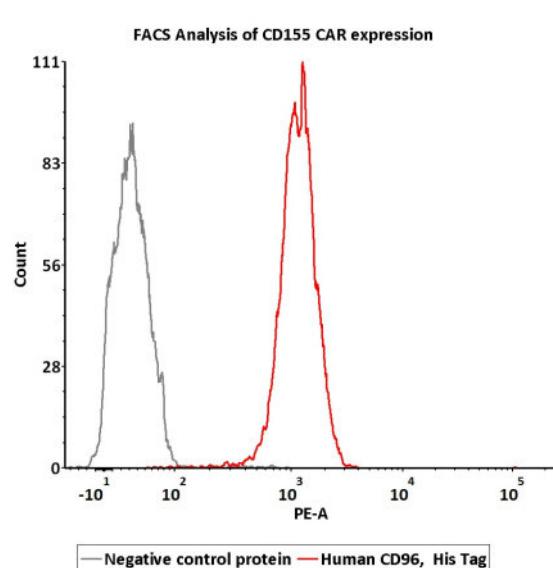
Immobilized Human CD96 (C110S), His Tag (Cat. No. [TAE-H52H0](#)) at 5 µg/mL (100 µL/well) can bind Human CD155, Fc Tag (Cat. No. [CD5-H5251](#)) with a linear range of 39-156 ng/mL (QC tested).

Bioactivity-BLI



Loaded Human CD155, Fc Tag (Cat. No. CD5-H5251) on Protein A Biosensor, can bind Human CD96 (C110S), His Tag (Cat. No. TAE-H52H0) with an affinity constant of 625 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Bioactivity-Cell based assay



FACS analysis of Human CD96, His Tag binding to CD155 cells overexpressing CD155.

2e5 of CD155 cells overexpressing CD155 were stained with 100 µL of 1 µg/mL of Human CD96 (C110S), His Tag (Cat. No. TAE-H52H0) and negative

control protein respectively, washed and then followed by PE anti-His Tag antibody and analyzed with FACS (Routinely tested).

Background

The progression of pancreatic cancer (PC) is significantly associated with tumor immune escape, which may be associated with nature killer (NK) cell dysfunction. CD226, CD96, and TIGIT, which share the ligand CD155, play important roles in the regulation of NK cell function. The present study was conducted to investigate the roles of these molecules in NK cells from PC patients. TIGIT and CD96 together with the co-stimulatory receptor CD226 form a pathway that is analogous to the CD28/CTLA-4 pathway, in which shared ligands and differential receptor:ligand affinities fine-tune the immune response. Although the roles of TIGIT and CD96 as immune checkpoint receptors in T cell and natural killer cell biology are just beginning to be uncovered, accumulating data support the targeting of these receptors for improving anti-tumor immune responses. A clear understanding of the immune cell populations regulated by TIGIT and CD96 is key to the design of immunotherapies that target these receptors in combination with other existing immune checkpoint blockade therapies. The dysfunction of CD96 may trigger C syndrome: A syndrome characterized by trigonocephaly, severe mental retardation, hypotonia, variable cardiac defects, redundant skin, and dysmorphic facial features, including upslanted palpebral fissures, epicanthal folds, depressed nasal bridge, and low-set, posteriorly rotated ears.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.