

Synonym

KREMEN, KRM1, Dickkopf receptor/Kringle domain-containing transmembrane protein 1/Kringle-containing protein marking the eye and the nose

Source

Human Kremen-1, Fc Tag (KR1-H5253) is expressed from human 293 cells (HEK293). It contains AA Arg 21 - Thr 392 (Accession # [Q96MU8-1](#)).

Predicted N-terminus: Arg 21

Molecular Characterization

Kremen-1(Arg 21 - Thr 392) Q96MU8-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 67.4 kDa. The protein migrates as 80-100 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% 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.

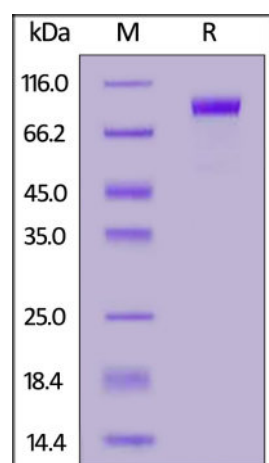
Storage

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

Please avoid repeated freeze-thaw cycles.

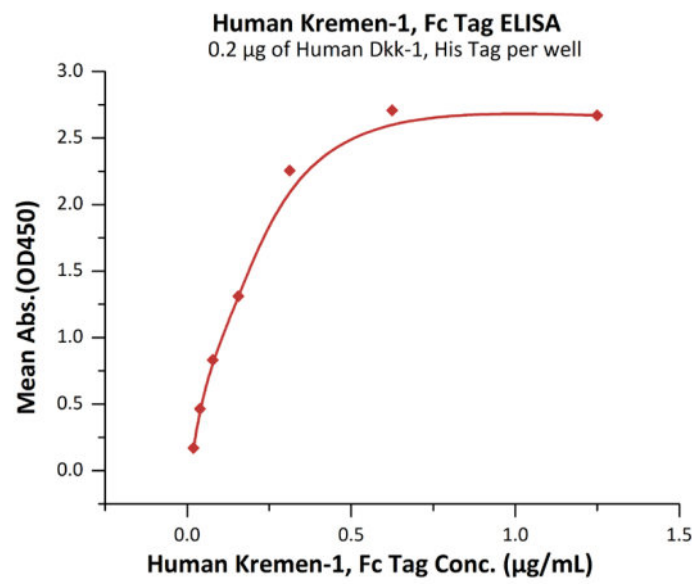
This product is stable after storage at:

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

SDS-PAGE

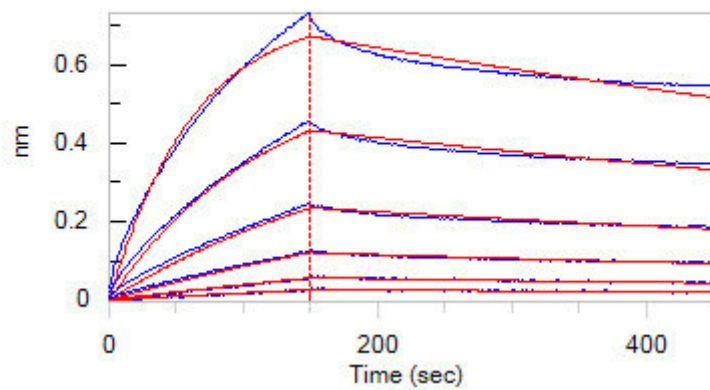
Human Kremen-1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

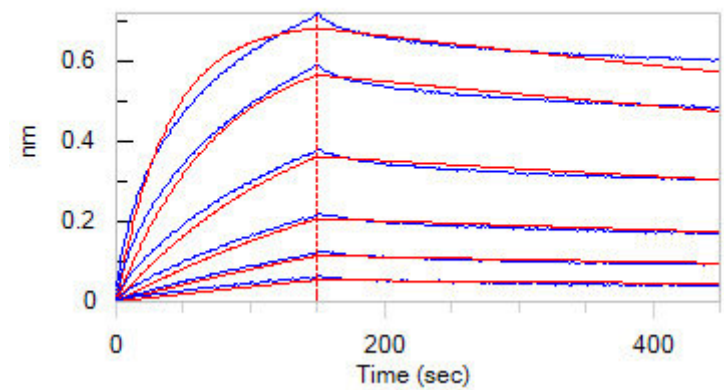


Immobilized Human Dkk-1, His Tag (Cat. No. [DK1-H5221](#)) at 2 µg/mL (100 µL/well) can bind Human Kremen-1, Fc Tag (Cat. No. [KR1-H5253](#)) with a linear range of 0.02-0.313 µg/mL (QC tested).

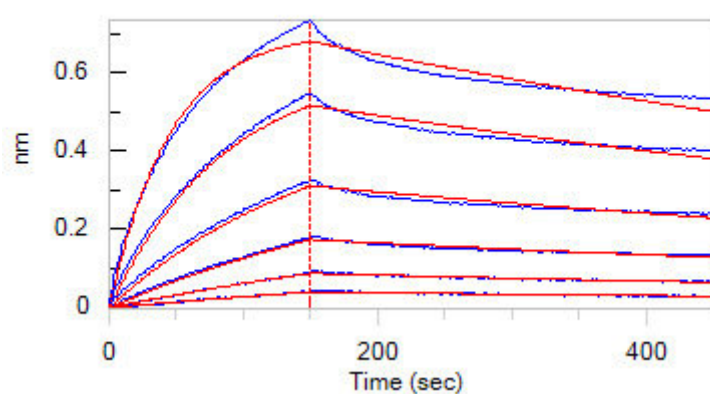
Bioactivity-BLI



Loaded Human KREMEN1, Fc Tag (Cat. No. [KR1-H5253](#)) on Protein A Biosensor, can bind SARS-CoV-2 S protein RBD, His Tag (Cat. No. [SPD-C52H3](#)) with an affinity constant of 283 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Human KREMEN1, Fc Tag (Cat. No. [KR1-H5253](#)) on Protein A Biosensor, can bind SARS-CoV-2 S1 protein with an affinity constant of 114 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Human KREMEN1, Fc Tag (Cat. No. [KR1-H5253](#)) on Protein A Biosensor, can bind SARS-CoV-2 S1 protein NTD, His Tag (Cat. No. [S1D-C52H6](#)) with an affinity constant of 241 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Kremens are high-affinity receptors for Dickkopf 1 (Dkk1) and regulate the Wnt/ β -catenin signaling pathway by down-regulating the low-density lipoprotein receptor-related protein 6 (LRP6). Kremen1 is considered as one component of a membrane complex modulating canonical Wnt signalling through LRP6 in vertebrates. Additionally, KREMEN1 (KRM1) has also been identified as a functional receptor for Coxsackievirus A10 (CV-A10), a causative agent of hand-foot-and-mouth disease (HFMD).

References

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