



# Recombinant Protein Technical Manual

## Recombinant Human CD82/KAI Protein (His Tag)

RPES0093

### Product Data:

**Product SKU:** RPES0093

**Size:** 20µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** P27701

### Protein Information:

**Molecular Mass:** 15 kDa

**AP Molecular Mass:** 25-33 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 90 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** 4F9;C33;GR15;IA4;KAI;KAI1;R2;SAR2;ST6;TSPAN27

## Immunogen Information:

**Sequence:** Gly 111-Leu 228

## Background:

CD82, also known as KAI, structurally belongs to tetraspanin family while categorised as metastasis suppressor gene on functional grounds. KAI1/CD82 is localized on cell membrane and form interactions with other tetraspanins, integrins and chemokines which are respectively responsible for cell migration, adhesion and signalling. Downregulation of CD82 expression is associated with the advanced stages of many human cancers and correlates with the acquisition of metastatic potential. Recent studies suggest that complex mechanisms underlie CD82 loss of function, including altered transcriptional regulation, splice variant production and post-translational protein modifications, and indicate a central role for CD82 in controlling metastasis as a 'molecular facilitator'. The loss of KAI1/CD82 expression in invasive and metastatic cancers is due to a complex, epigenetic mechanism that probably involves transcription factors such as NFkappaB, p53, and beta-catenin. A loss of KAI1 expression is also associated with the advanced stages of many human malignancies and results in the acquisition of invasive and metastatic capabilities by tumour cells. Thus, KAI1/CD82 is regarded as a wide-spectrum tumor metastasis suppressor.