

HLA-A\*03:01&B2M&KRAS G12V (VVVGAVGVGK) Monomer Protein, Human, MHC (His & Avi),

### General Information

**Synonyms:** RASK2;CFC2;K-Ras 2;NS3;GTPase Kras;KRAS1;K-RAS4B;K-RAS2B;MHC;KI-RAS;NS;K-RAS2A;KRAS2;KRAS;C-K-RAS;K-RAS4A;RALD

**Protein Construction:** Gly25-Thr305(HLA-A\*03:01),Ile21-Met119(B2M) and VVVGAVGVGK peptide

**Species:** Human

**Expression Host:** HEK293 Cells

**Accession:** NP\_002107.3(HLA-A\*03:01)&P61769(B2M)&VVVGAVGVGK

**Molecular Weight:** The protein has a predicted MW of 50.2 kDa. Due to glycosylation, the protein migrates to 52-60 kDa based on Tris-Bis PAGE result.

### QC Testing

**Biological Activity:** Immobilized Biotinylated Human HLA-A\*03:01&B2M&KRAS G12V (VVVGAVGVGK) Monomer, His Tag at 1µg/ml (100µl/well) on the streptavidin precoated plate (5µg/ml). Dose response curve for Anti-HLA-A\*03:01&B2M&KRAS G12V (VVVGAVGVGK) Antibody, hFc Tag with the EC50 of 0.29µg/ml determined by ELISA (QC Test). Biotinylated Human HLA-A\*03:01&B2M&KRAS G12V (VVVGAVGVGK) Monomer, His Tag captured on CM5 Chip via anti-his antibody can bind Anti-HLA-A\*03:01&B2M&KRAS G12V (VVVGAVGVGK) Antibody with an affinity constant of 0.14 µM as determined in SPR assay (Biacore T200).

**Purity:** > 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC

**Endotoxin:** < 1.0 EU/µg of the protein as determined by the LAL method.

**Formulation:** Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

### Preparation and Storage

#### Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 µg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

#### Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

**Protein Background**

Kirsten rat sarcoma 2 viral oncogene homolog (KRAS) is the most commonly mutated oncogene in human cancer. The developments of many cancers depend on sustained expression and signaling of KRAS, which makes KRAS a high-priority therapeutic target. The virtual screening approach to discover novel KRAS inhibitors and synthetic lethality interactors of KRAS are discussed in detail.

Reference

Wu HZ, et al. KRAS: A Promising Therapeutic Target for Cancer Treatment. *Curr Top Med Chem.* 2019;19(23):2081-2097. doi: 10.2174/1568026619666190905164144. PMID: 31486755.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481