

## Ki67/MKI67 Recombinant Protein | MKI67 recombinant protein

Ki67/MKI67 Protein, Human, Recombinant (GST Tag)

CATALOG #  
AAA258015

HOST  
E Coli

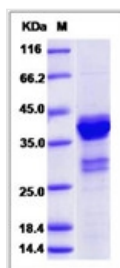
### PRODUCT SYNONYMS

Ki67/MKI67; Ki67/MKI67 Protein; Human; Recombinant (GST Tag); Human MKI67 Protein (GST Tag); KIA Protein; MIB- Protein; MIB-1 Protein; PPP1R105 Protein; marker of proliferation Ki-67; MKI67 recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                                                       |
| Purity/Purification     | >80% as determined by SDS-PAGE                                                                                                                               |
| Form/Format             | Lyophilized from sterile PBS, pH 7.4                                                                                                                         |
| Sequence                | Met1-Pro120                                                                                                                                                  |
| Species                 | Human                                                                                                                                                        |
| Predicted N Terminal    | Met                                                                                                                                                          |
| Tag                     | GST                                                                                                                                                          |
| Protein Construction    | A DNA sequence encoding the mature form of human MKI67 (P46013-2)(Met1-Pro120) was fused with the GST tag at the N-terminus.                                 |
| Reconstitution          | It is recommended that sterile <b>PBS, pH7.4</b> (400ul) be added to the vial to prepare a stock solution of 0.25mg/ml. Concentration is measured by UV-Vis. |
| Preparation and Storage | Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.            |

### IMAGES



SDS-PAGE

## ADDITIONAL INFORMATION

|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for MKI67 recombinant protein</b> | <p>Background: MKI67 contains 1 FHA domain and plays a key role in cell proliferation. During interphase, the MKI67 antigen can be exclusively detected within the cell nucleus, whereas in mitosis most of the protein is relocated to the surface of the chromosomes. MKI67 protein is present during all active phases of the cell cycle (G1, S, G2, and mitosis), but is absent from resting cells. MKI67 is an excellent marker to determine the growth fraction of a given cell population. The fraction of MKI67-positive tumor cells is often correlated with the clinical course of cancer. It is also associated with ribosomal RNA transcription. Inactivation of antigen MKI67 leads to inhibition of ribosomal RNA synthesis. The MKI67 protein is a nuclear and nucleolar protein, which is tightly associated with somatic cell proliferation. Antibodies raised against the human MKI67 protein paved the way for the immunohistological assessment of cell proliferation, particularly useful in numerous studies on the prognostic value of cell growth in clinical samples of human neoplasms. MKI67 protein expression is an absolute requirement for progression through the cell-division cycle. Recently, MKI67 is proved to be an independent prognostic factor for disease-free survival (HR 1.5-1.72) in multivariate analyses studies using samples from randomized clinical trials with secondary central analysis of the biomarker. MKI67 was not found to be predictive for long-term follow-up after chemotherapy. Nevertheless, high KI-67 was found to be associated with immediate pathological complete response in the neoadjuvant setting, with an LOE of II-B. MKI67 could be considered as a prognostic biomarker for therapeutic decision.</p> |
| <b>References</b>                                                | <p>Rahmanzadeh R, et al. (2007) Chromophore-assisted light inactivation of pKi-67 leads to inhibition of ribosomal RNA synthesis. Cell Prolif. 40(3):422-30. Bullwinkel J, et al. (2006) Ki-67 protein is associated with ribosomal RNA transcription in quiescent and proliferating cells. J Cell Physiol. 206(3):624-35. Schonk DM, et al. (1989) Assignment of the gene(s) involved in the expression of the proliferation-related Ki-67 antigen to human chromosome 10. Hum Genet. 83(3):297-9. Endl E, et al., 2000, Exp Cell Res. Jun 15;257(2): 231-7. Luporsi E, et al., 2012, Breast Cancer Res Treat. 132(3): 895-915. Scholzen T, et al., 2000, J Cell Physiol. 182(3): 311-22.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## NCBI AND UNIPROT INFORMATION

|                                         |                                                                                                                                                                                                          |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NCBI GI #</b>                        | 225543215                                                                                                                                                                                                |
| <b>NCBI GeneID</b>                      | 4288                                                                                                                                                                                                     |
| <b>NCBI Accession #</b>                 | NP_001139438.1                                                                                                                                                                                           |
| <b>NCBI GenBank Nucleotide #</b>        | NM_001145966.1                                                                                                                                                                                           |
| <b>UniProt Accession #</b>              | P46013; Q5VWH2                                                                                                                                                                                           |
| <b>Molecular Weight</b>                 | The recombinant human MKI67 /GST chimera consists of 354 amino acids and has a predicted molecular mass of 41 kDa. It migrates as an approximately 37-41 kDa band in SDS-PAGE under reducing conditions. |
| <b>NCBI Official Full Name</b>          | antigen KI-67 isoform 2                                                                                                                                                                                  |
| <b>NCBI Official Synonym Full Names</b> | antigen identified by monoclonal antibody Ki-67                                                                                                                                                          |
| <b>NCBI Official Symbol</b>             | MKI67                                                                                                                                                                                                    |
| <b>NCBI Official Synonym Symbols</b>    | KIA                                                                                                                                                                                                      |
| <b>NCBI Protein Information</b>         | antigen KI-67; proliferation-related Ki-67 antigen                                                                                                                                                       |
| <b>UniProt Protein Name</b>             | Antigen KI-67                                                                                                                                                                                            |
| <b>UniProt Gene Name</b>                | <b>MKI67</b>                                                                                                                                                                                             |
| <b>UniProt Entry Name</b>               | KI67_HUMAN                                                                                                                                                                                               |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.