**Product Information**

**SILu™Prot MAPK3**
*Mitogen activated protein kinase 3, human recombinant, expressed in HEK cells*
**SIL MS Protein Standard, $^{13}$C and $^{15}$N-labeled**

Catalog Number **MSST0019**  
**Storage Temperature** –20 °C

**Product Description**
SILu™Prot MAPK3 is a recombinant, stable isotope-labeled human MAPK3, which incorporates [$^{13}$C$_6$, $^{15}$N$_2$]-Arginine and [$^{13}$C$_6$, $^{15}$N$_2$]-Lysine. Expressed in human 293 cells, it is designed to be used as an internal standard for bioanalysis of MAPK3 in mass spectrometry. SILu™Prot MAPK3 is a monomer of 399 amino acids (including N-terminal polyhistidine and FLAG® tags), with a calculated molecular mass of 45.9 kDa.

MAPK3, the first mammalian MAPK to be characterized and cloned, is commonly expressed in most tissues and is activated through the small guanosine triphosphatase Ras and sequential activation of the protein kinases Raf and MEK upon stimulation of cells with a broad range of extracellular signals. Erk was suggested to be a good marker for estradiol and tamoxifen effects. Alzheimer’s disease’s Erk1 and Erk2 index values were inversely correlated with disease duration, suggesting maximal efficacy for early diagnosis. In addition, differential Erk1 and Erk2 phosphorylation could have important clinical utility for providing increased certainty in the positive diagnosis of Alzheimer’s disease, particularly in the early phase of disease progression.

Each vial contains 10–13 μg of SILu™Prot MAPK3 standard, in a 0.1 mg/mL solution of 20 mM sodium phosphate, pH 8.0, 1 M NaCl, 1 mM EDTA, and 25% glycerol. Vial content was determined by the Bradford method using BSA as a calibrator. Correction factor from the Bradford method to Amino Acid Analysis is 90% for this protein.

**Precautions and Disclaimer**
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

**Storage/Stability**
Store the product at –20 °C. The product is stable for at least 2 years as supplied. After initial thawing it is recommended to store the protein in working aliquots at –20 °C.
References


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