Data Sheet (Cat.No.TMPY-03811)

TargetMol

KCT2 Protein, Human, Recombinant (His)

General Information

Synonyms:	chromosome 5 open reading frame 15;KCT2;HTGN29
Protein Construction:	A DNA sequence encoding the human C5orf15 (NP_064584.1) (Met1-Asp196) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Arg 50
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q8NC54
Molecular Weight:	17.5 kDa (predicted); 33-47 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
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, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. 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

C5orf15 (Chromosome 5 Open Reading Frame 15, also known as KCT2) is a Protein Coding gene. KCT2 gene maps to human chromosome 5q31.1 and is conserved in human, chimpanzee, cow, rat, and chicken. KCT2 is a 265 amino acid single-pass type I membrane protein that is widely expressed in the thyroid, kidney, and other tissues. Chromosome 5 is associated with Cockayne syndrome through the ERCC8 gene and familial adenomatous polyposis through the adenomatous polyposis coli (APC) tumor suppressor gene. Chromosome 5 contains 181

million base pairs and comprises nearly 6% of the human genome. Diseases associated with C5orf15 include Arrhythmogenic Right Ventricular Dysplasia, Familial, 5, and Amyotrophic Lateral Sclerosis 11.

Reference

Bonkobara M., et al.,(2003), Identification of novel genes for secreted and membrane-anchored proteins in human keratinocytes. Br. J. Dermatol. 148:654-664.

Yu W, et al., (1997), Large-scale concatenation cDNA sequencing. Genome Res. 7(4):353-8.

Ota T., et al.,(2004), Complete sequencing and characterization of 21,243 full-length human cDNAs.Nat. Genet. 36: 40-45.

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