



Daresbury Proteins

Product description

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Name: Recombinant Human Thrombospondin Type-1 Domain-Containing Protein 7A, THSD7A

Synonyms: Thrombospondin Type-1 Domain-Containing Protein 7A

Species: Human

Source: HEK293

Amino Acids: 48-1606

Tag: 10xHis at the C terminus

Predicted Molecular Weight: 176 kDa

Protein ID: Q9UPZ6

Sequence:

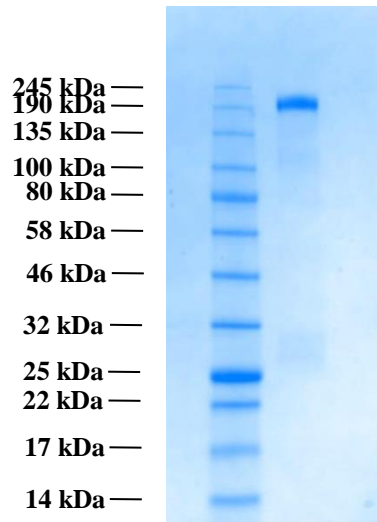
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 WRLGPWNQCQPVISKSLEKPLECIKGEEGIQVREIACIQKDKDIPAEDIICEYFEPKPLLEQA CLIPCQQDCIVSEFSAWSECS
 KTCGSLQHRTRHV VAPPQFGGSGCPNLTEFQVCQSSPCEAEELRYSLHVGPWSTCSMPHSRQVRQARRRGKNKEREKD
 RSKGVKDPEARELIKKRNRNRQNRQENKYWDIQIGYQTREVMCINKTGKAADL SFCQQEKLPMTFQSCVITKECQVSE
 WSEWSPSKTCHDMVSPAGTRVRTRTIRQFPIGSEKECPEFEEKEPCLSQGDGVVPCATYGWRTTEWTECRVDPLLSQQ
 DKRRGNQTALCGGGIQTREYVCVQANENLLSQLSTHKNKEASKPMDLKLCTGPIPNTTQLCHIPCPTCEVSPWSAWGPC
 TYENCNDQQGKKGFKLRRRITNEPTGGSGVTGNCPHLLAIPCEEPACYDWKAVRLGNCEPDNGKECGPGTQVQEVVCI
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 RSCNEHPCTVYHWQTGPWGQCIEDTSVSSFNTTTTWNGEASCSVGMQTRKVICVRVNVGVGPKKCPESLRPETVRPCL
 LPCKKDCIVTPYSDWTSCPSSCKEGDSSIRKQSRHRVIIQLPANGGRDCTDPLYEEKACEAPQACQSYRWKTHKWRRQC
 LPWSVQQDSPGAQEGCGPGRQARAITCRKQDGGQAGIHECLQYAGVPVALTQACQIPCQDDCQLTWSKFSFCNGDCGA
 VRTRKRTL VGKSKKKECKNSHLYLIETQYCPDKYNAQPVGNWSDCILPEGKVEVLLGMKVQGDIKECGQGYRYQAM
 ACYDQNGRLVETSRCNSHG YIEEACIIPCSDCKLSEWSNWSRCSKSCGSGVKVRSKWLREKPYNGGRPCPKLDHVNQAQ
 VYEVVPC HSDCNQYLWVTEPWSICKVTFVNMRENCGEGVQTRKVRQMNTADGPSEHVEDYLCDPEEMPLGSRVCKLPC
 PEDCVISEWGPWTQCVLPCNQSSFRQRSADPIRQPADEGRSCPNAVEKEPCNLNKNKYHYDYNVTDWSTCQLSEKAVCG
 NGIKTRMLDCVRS DGKSVLDKYCEALGLEKNWQMNTSCMVECPVNCQLSDWSPWSECSQT CGLTGKMIRRTVTQPFQ
 GDGRPCPSLMDQSKPCPVKPCYRWQYQWSPCQVQEAQCGEGTRTRNISCVSDGSADDFSKVVDEEFCADIELIIDGNK
 NMVLEESCSQPCPGDCYLKDWSSWSLQLT CVNGEDLGFGGIQVRSRPVIIQELENQHLCP EQMLETKSCYDGCY EYKW
 MASAWKGSRTVWCQRSDGINVTGGCLVMSQPDADRSCNPPCSQPHSYCSETKTCHCEGYTEVMSSNSTLEQCTLIPVV
 VLPTMEDKRGDVKTSRAVHPTQPSSNPAGRGRTWFLQPFQPDGRLKTHHHHHHHHHHH

Product specifications

Estimated Molecular Weight, SDS-PAGE: \approx 215 kDa

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Grade & Purity: >95% as estimated by SDS-PAGE stained with Instant Blue Stain (Expedeon).



Endotoxins: Less than 0.1 ng/ μ g (1 IEU/ μ g), as measured by LAL method.

Formulation: PBS 20% Glycerol

Shipping

Product is shipped either on dry or wet ice. Upon receipt, store at -20°C to -70°C.

Product application and Storage

Storage: The protein should be stored at -20°C to -70°C preferably in small aliquots to avoid repeated freeze-thaw cycles.

Stability: At least 12 months at -20°C to -70°C and at least 1 month at 2°C to 8°C.

Application Note: For research purposes only. Not for use in humans.

Background Information

THSD7A was first identified as an endothelial protein that is expressed in the vascular system of the placenta (1). It is expressed by cells of endothelial and neuronal lineage. The soluble form of THSD7A promotes endothelial cell migration and filopodia formation during angiogenesis via a FAK-dependent mechanism (2). This protein may be involved in cytoskeletal organization. Variations in this gene may be associated with low bone mineral density in osteoporosis.

THSD7A is expressed on podocytes and is responsible for 2-5% of patients with idiopathic membranous nephropathy (3, 4, 5).

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References:

1. Wang et al. (2010) *J. Cell Physiol.*, 685-694
2. Kuo et al. (2011) *PLoS ONE*, E29000
3. Tomas et al. (2014) *New Engl. J. Med.*, 2277-2287
4. Tomas et al. (2016) *J. Clin. Invest.*, 2519-2532
5. Hoxha and Stahl. (2017) *Semin. Nephrol.*, 436-446