

DESCRIPTION

Source Human embryonic kidney cell, HEK293-derived
Ala48-Trp1607, with a C-terminal 6-His tag
Accession # Q9UPZ6

N-terminal Sequence Analysis Ala48

Predicted Molecular Mass 176 kDa

SPECIFICATIONS

SDS-PAGE 160-265 kDa, reducing conditions

Activity Measured by the ability of the immobilized protein to support the adhesion of SVEC4-10 mouse vascular endothelial cells.
The ED₅₀ for this effect is 0.1-0.6 µg/mL.

Endotoxin Level <0.10 EU per 1 µg of the protein by the LAL method.

Purity >85%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

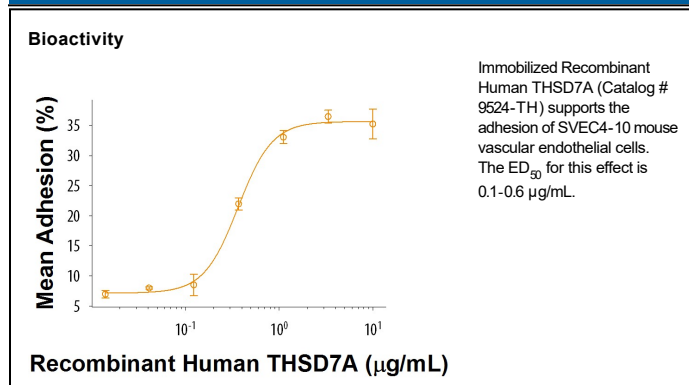
Reconstitution Reconstitute at 500 µg/mL in PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

Thrombospondin type I domain containing 7A, also known as THSD7A, is an approximately 250 kDa type I membrane protein (1). THSD-7A has a large extracellular domain containing ten thrombospondin type 1 repeats, six WSXW motifs, one RGD motif, and fourteen predicted N-glycosylated sites (1). Mature THSD7A shares 91% and 92% amino acid sequence identity with mouse and rat, respectively. THSD7A is expressed in podocytes, glomerular endothelial cells and mesangial cells (2). It is a novel neural protein known to affect endothelial migration and vascular patterning during development (1, 3). Soluble THSD7A promotes endothelial filopodia formation and focal adhesion assembly and induces FAK-dependent signaling during angiogenesis (1). THSD7A can co-localize with αvβ3 integrin in HUVECs (3). Additionally, most recent study has indicated that THSD7A is associated with obesity (4).

References:

1. Kuo, M.W. *et al.* (2011) PLoS One 6: e29000.
2. Tomas, N.M. *et al.* (2014) N. Engl. J. Med. 371:2277.
3. Wang, C.H. *et al.* (2010) J. Cell Physiol. 222: 685.
4. Nizamuddin, S. *et al.* (2015) Int. J. Obes. (Lond.) 39:1662.