

PRODUCT INFORMATION



DS-TNFR2 M196R variant (human, recombinant)

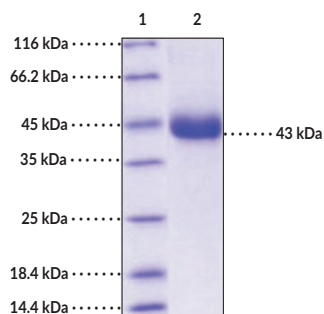
Item No. 32023

Overview and Properties

Synonyms:	CD120b, TNFR2, DS-TNFR2(Δ 7,8), TNFRSF1B, Tumor Necrosis Factor Receptor 2, Tumor Necrosis Factor Receptor Superfamily Member 1B
Source:	Active recombinant human C-terminal His-tagged DS-TNFR2 M196R variant expressed in HEK293 cells
Amino Acids:	23-268
Molecular Weight:	27.7 kDa
Storage:	-80°C (as supplied)
Stability:	≥ 1 year
Purity:	$\geq 95\%$ estimated by SDS-PAGE
Supplied in:	Lyophilized from sterile PBS, pH 7.4
Endotoxin Testing:	<1.0 EU/ μ g, determined by the LAL endotoxin assay
Bioactivity:	See figures for details

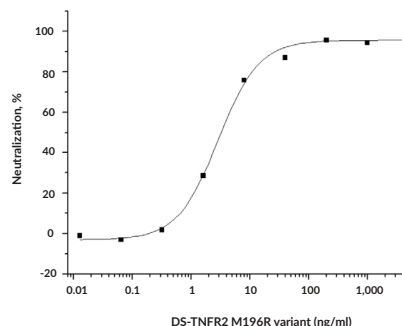
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Images



Lane 1: MW Markers
Lane 2: DS-TNFR2 M196R variant

SDS-PAGE Analysis of DS-TNFR2 M196R variant. This protein has a calculated molecular weight of 27.7 kDa. It has an apparent molecular weight of approximately 43 kDa by SDS-PAGE under reducing conditions due to glycosylation.



DS-TNFR2 M196R variant Inhibits TNF- α -mediated Cytotoxicity in L929 Mouse Fibrosarcoma Cells in the Presence of the Metabolic Inhibitor Actinomycin D. The EC₅₀ value for this effect is typically 5-40 ng/ml in the presence of 1 ng/ml TNF- α (human, recombinant).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/18/2020

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

TNF receptor 2 (TNFR2), also known as CD120b or TNFRSF1B, is a TNF- α receptor encoded by *TNFRSF1B* and expressed in cells of hematopoietic origin, as well as endothelial cells.¹⁻³ Alternative splicing leads to the formation of a soluble, secreted isoform of TNFR2, known as differential splicing TNFR2 (DS-TNFR2), lacking the transmembrane and cytoplasmic domains.¹ Cell supernatants containing DS-TNFR2 inhibit TNF- α -induced cytotoxicity in L929 cells. Serum levels of DS-TNFR2 are elevated in patients with rheumatoid arthritis. Single nucleotide polymorphisms in *TNFRSF1B* resulting in a methionine-to-arginine substitution at position 196 (M196R) are associated with susceptibility to systemic lupus erythematosus (SLE) in Japanese patients, rheumatoid arthritis risk in European patients, and polycystic ovary syndrome (PCOS) in female patients.²⁻⁴ Cayman's DS-TNFR2 M196R variant (human, recombinant) protein can be used for cell-based assay applications. This protein consists of 257 amino acids, has a calculated molecular weight of 27.7 kDa, and a predicted N-terminus of Leu23 after signal peptide cleavage. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is approximately 43 kDa due to glycosylation.

References

1. Lainez, B., Fernandez-Real, J.M., Romero, X., *et al.* Identification and characterization of a novel spliced variant that encodes human soluble tumor necrosis factor receptor 2. *Int. Immunol.* **16**(1), 169-177 (2004).
2. Peral, B., San Millán, J.L., Castello, R., *et al.* Comment: The methionine 196 arginine polymorphism in exon 6 of the TNF receptor 2 gene (*TNFRSF1B*) is associated with the polycystic ovary syndrome and hyperandrogenism. *J. Clin. Endocrinol. Metab.* **87**(8), 3977-3983 (2002).
3. Song, G.G., Bae, S.-C., and Lee, Y.H. Associations between functional TNFR2 196 M/R polymorphisms and susceptibility to rheumatoid arthritis: A meta-analysis. *Rheumatol. Int.* **34**(11), 1529-1537 (2014).
4. Komata, T., Tsuchiya, N., Matsushita, M., *et al.* Association of tumor necrosis factor receptor 2 (*TNFR2*) polymorphism with susceptibility to systemic lupus erythematosus. *Tissue Antigens* **53**(6), 527-533 (1999).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM