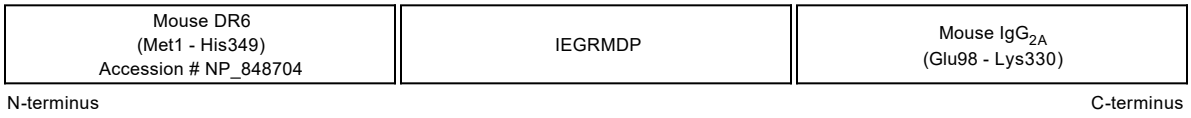
Recombinant Mouse DR6/TNFRSF21 Fc Chimera

Catalog Number: 6985-DR

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived



N-terminal Sequence Analysis	No results obtained: Gln42 predicted, N-sequencing might be blocked
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	60.7 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	80-95 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When recombinant human APP770 is coated at 2 µg/mL (100 µL/well), the concentration of Recombinant Mouse DR6/TNFRSF21 Fc Chimera that produces 50% of the optimal binding response is found to be approximately 80-400 ng/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 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.

BACKGROUND

Death Receptor 6 (DR6), also known as TNFRSF21 and CD358, is a type I transmembrane protein in the TNF receptor superfamily (1). Mouse DR6 consists of a 308 amino acid (aa) extracellular domain (ECD) with four cysteine-rich motifs, a 21 aa transmembrane segment, and a 285 aa palmitoylated cytoplasmic region that contains one death domain (2, 3). Within the ECD, mouse and human DR6 share 82% aa sequence identity. DR6 is expressed as an approximately 110 kDa molecule that carries extensive N-linked and O-linked glycosylation in its extracellular region (3, 4). Among hematopoietic cells, DR6 is expressed on monocytes, resting CD4+ T cells, and pro-, pre-, and naïve B cells (5 - 7). DR6 knockout mice exhibit a Th2-biased immune response characterized by exaggerated Th2 and B cell responsiveness in combination with reduced Th1 cell responsiveness and inflammatory leukocyte infiltration (2, 6 - 8). DR6 knockout mice are resistant to induced airway inflammation and experimental autoimmune encephalitis but more susceptible to severe graft versus host disease (8 - 10). DR6 is also expressed on developing neurons where it can bind a shed 35 kDa N-terminal fragment of APP or a fragment of APLP2 (11, 12). This APP fragment is generated following deprivation of neurotrophic factors, and its binding to DR6 triggers DR6-mediated axonal pruning (11). DR6 is constitutively expressed on some prostate cancer cells and can be induced by TNF-α on others (3, 4).

References:

1. Benschop, R. *et al.* (2009) Adv. Exp. Med. Biol. **647**:186.
2. Zhao, H. *et al.* (2001) J. Exp. Med. **194**:1441.
3. Klima, M. *et al.* (2009) Biochim. Biophys. Acta **1793**:1579.
4. Kasof, G.M. *et al.* (2001) Oncogene **20**:7965.
5. Matesanz-Isabel, J. *et al.* (2011) Immunol. Lett. **134**:104.
6. Schmidt, C.S. *et al.* (2003) J. Exp. Med. **197**:51.
7. Liu, J. *et al.* (2001) Immunity **15**:23.
8. Venkataraman, C. *et al.* (2006) Immunol. Lett. **106**:42.
9. Schmidt, C.S. *et al.* (2005) J. Immunol. **175**:2286.
10. Liu, J. *et al.* (2002) J. Immunol. **169**:3993.
11. Nikolaev, A. *et al.* (2009) Nature **457**:981.
12. Kuester, M. *et al.* (2011) J. Mol. Biol. **409**:189.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449