

## IVMB0411

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### Product Information

<b>Product SKU:</b> IVMB0411	<b>Clone:</b> APN311	<b>Target:</b> GD2
<b>Size:</b> 25 mg, 5 mg, 1 mg		<b>Isotype:</b> Human IgG1k

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### Additional Information

<b>Reactivity:</b> Human	<b>Host Species:</b> Human
<b>Antibody Type:</b> Biosimilar Recombinant Human Monoclonal Antibody	<b>Expression Host:</b> HEK-293 Cells

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### Immunogen Information

**Background:** Neuroblastoma is an extracranial childhood cancer that accounts for 12% of cancer deaths in children<sup>1</sup>. Neuroblastomas highly express the antigen GD2, a glycolipid which assists in the attachment of tumor cells to the extracellular matrix<sup>2</sup>.

Dinutuximab is a mouse-human chimeric monoclonal antibody to disialoganglioside (GD2)<sup>3</sup>. Engagement of dinutuximab with GD2 triggers antibody dependent cell cytotoxicity and complement dependent cytotoxicity, the effectiveness of which is increased by coadministration with granulocyte-macrophage colony stimulating factor (GM-CSF), interleukin-2 (IL-12), and 13-cis retinoic acid (isotretinoin).

Dinutuximab, also known as ch14.18, was developed as an IgG1 human/mouse chimeric switch variant of murine monoclonal antibody 14.18<sup>4</sup>. Dinutuximab is composed of the variable heavy- and light-chain regions of the murine anti-GD2 mAb 14.18 and the constant regions of human IgG1 heavy-chain and  $\kappa$  light-chain. Dinutuximab is produced in the murine myeloma cell line SP2/O and has an approximate molecular weight of 150 kDa<sup>5</sup>. Studies have also tested the efficacy of dinutuximab grown in Chinese hamster ovary (CHO) cells (ch14.18/CHO)<sup>6,7</sup>.

**Endotoxin Level:** < 1.0 EU/mg as determined by the LAL method

**Applications:** ELISA

<b>Synonyms:</b>	human ganglioside GD2, disialoganglioside
<b>Antigen Distribution:</b>	GD2 is a cell surface glycolipid present in low concentrations on skin, neural or peripheral nerve cell surfaces. GD2 is overexpressed on neuroblastoma cells, most melanoma, and some other tumors.
<b>Immunogen:</b>	Humanized antibody derived from mouse clone ch14.18
<b>Formulation:</b>	This biosimilar antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
<b>Specificity:</b>	Dinutuximab activity is directed against human disialoganglioside (GD2).
<b>Recommended Isotype</b>	Human IgG1
<b>Controls:</b>	
<b>Storage &amp; Handling:</b>	Functional grade biosimilar antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at -80°C. Avoid Repeated Freeze Thaw Cycles.