



A Monoclonal Antibody Specific for Brain Alpha-Dystroglycan

WARF: P06475US

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing monoclonal antibody that specifically recognizes brain alpha-dystroglycan from a variety of species.

Overview

The transmembrane protein dystroglycan is associated with autosomal recessive muscular dystrophies. Although dystroglycan is glycosylated in a tissue-specific manner, no commercial monoclonal antibodies capable of differentiating between the various tissue-specific glycoforms of alpha-dystroglycan currently exist.

The Invention

UW-Madison researchers have developed mAb 2238E2D2, an IgG2b isotype monoclonal antibody that specifically recognizes brain alpha-dystroglycan from a variety of species. They developed this monoclonal antibody by immunizing mice with purified alpha-dystroglycan from bovine brain and screening for antibodies that reacted only with brain alpha-dystroglycan. They also created another monoclonal antibody, mAb 2237E2D1, which is specific for brain alpha-dystroglycan from cows.

Applications

- Research on dystroglycan and associated muscular dystrophies

Key Benefits

- Provides—for the first time—an antibody that recognizes alpha-dystroglycan in a tissue-specific manner

Stage of Development

Successfully used to identify brain alpha-dystroglycan in Western blot analysis.

Publications

- McDearmon E.L., Combs A.C., Sekiguchi A., Fujiwara H. and Servasti J. 2006. Brain a-Dystroglycan Displays Unique Glycoepitopes and Preferential Binding to Laminin-10/11. FEBS Letters. 580:3381-3385.

Tech Fields

- [Research Tools : Antibodies](#)

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