Mouse Chitotriosidase/CHIT1 Biotinylated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: BAF5325

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Chitotriosidase/CHIT1 in Western blots. In Western blots, approximately 30% cross-reactivity with recombinant human CHIT1 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Chitotriosidase/CHIT1 Ala22-Ser464 Accession # Q9D7Q1
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Chitotriosidase/CHIT1 (Catalog # 5325-GH)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile 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. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Chitotriosidase, encoded by the mouse CHIT1 gene, is a typical member of the chitinase family (1). It is distinct from another member known as acidic mammalian chitinase (AMC), encoded by the CHIA gene, in several aspects. AMC/CHIA is expressed mainly in alveolar macrophages and in both the mouse and human gastrointestinal tract (2). CHIT1, however, is expressed exclusively by phagocytes in humans and in the gastrointestinal tract, tongue, fore-stomach, and Paneth cells of the small intestine in mice (2). Both CHIA and CHIT1 are secreted as 50 kDa proteins. In contrast to CHIA, CHIT1 is not stable under acidic pH and can be processed into a C-terminally truncated 39 kDa form (2-4). Human CHIT1 is the best of three biomarkers in the monitoring of Gaucher disease (5). The other two commonly used markers include acid phosphatase and angiotensin-converting enzyme (ACE) (5). Human CHIT1 is also a specific marker of macrophage activation in acute ischemic stroke (6).

References:

1. Zheng, T. *et al.* (2005) Gene **357**:37.
2. Boot, R.G. *et al.* (2006) J. Histochem. Cytochem. **53**:1283.
3. Boot, R.G. *et al.* (2001) J. Biol. Chem. **276**:6770.
4. Renkema, G.H. *et al.* (1997) Eur. J. Biochem. **244**:279.
5. Vellodi, A. *et al.* (2005) J. Inherit. Metab. Dis. **28**:585.
6. Sotgiu, S. *et al.* (2005) Eur. Neurol. **54**:149.

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