219 North Arkansas Street
Rogers, AR 72756
Phone: (479) 636-4361; 800-643-3426
Fax: (479) 636-3562
Email: biosales@pel-freez.com
Website: www.pelfreez-bio.com

PRODUCT DATA SHEET

Product Name: **ANTI-PHOSPHO-Thr^{53} DOPAMINE TRANSPORTER ANTIBODY**

Product Code: P40007-100

Pack Size: 100 µL

Description: The dopamine transporter (DAT) is responsible for the reaccumulation of dopamine after it has been released. DAT antibodies and antibodies for other markers of catecholamine biosynthesis are widely used as markers for dopaminergic and noradrenergic neurons in a variety of applications including depression, schizophrenia, Parkinson's disease and drug abuse (Kish et al., 2001; Zhu et al., 2000; Zhu et al., 1999). Levels of DAT protein expression are altered by chronic drug administration (Wilson et al., 1996). It has been shown that phosphorylation at Thr^{53} directly affects dopamine influx and amphetamine-stimulated substrate efflux, indicating that the Thr^{53} residue plays a major role in transport activity (Foster et al., 2012).

Physical State: Liquid; Buffer contents: 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per mL BSA and 50% glycerol

Storage/Stability: Stable at -20 °C for at least 1 year. For long term storage -20 °C is recommended

Purification Method: Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.

Shipping Conditions: Domestic: Blue Ice
International: Blue Ice or Dry Ice

Host Species: Rabbit (Polyclonal)

***Mr* (kDa):** 55

Immunogen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr^{53} of rat DAT. Specific for the ~55k glycosylated form of the DAT protein phosphorylated at Thr^{53}. Relative mobility may vary depending on the state of glycosylation of the DAT protein. The antibody works best in lysates that have not been boiled prior to being run on an SDS-PAGE gel. Immunolabeling of the DAT band is blocked by preadsorption with the phospho-peptide used as antigen but not by the corresponding dephospho-peptide.

Species Reactivity: The antibody has been directly tested for reactivity in Western blots with rat tissue.

Recommended Antibody Dilutions:

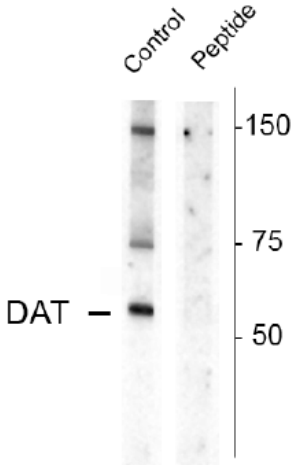
WB: 1:1000

References:

1) Kish SJ et al. (2001) *Neuropsychopharmacology* 24:561-567.
2) Wilson JM et al. (1996) *Nat Med* 2:699-703.
3) Zhu MY et al. (2000) *J Neurosci Meth* 99:37-44.
4) Zhu MY et al. (1999) *Biol Psychiatry* 46:1275-1286.

Western Blot

Rat caudate lysate showing specific immunolabeling of the ~55k glycosylated form of the DAT protein phosphorylated at Thr53. Immunolabeling is blocked by the phospho-peptide used as antigen (peptide), but not by the corresponding dephospho-peptide (not shown).



Application Key: WB – Western Blot IF – Immunofluorescence IHC – Immunohistochemistry IP - Immunoprecipitation