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11-10057: Polyclonal Antibody to Transferrin (Antheraea mylitta)

Clonality : Polyclonal
Application : ICC/IF,IHC,WB
Format : Purified

Description

Transferrin (Tsf) is a multitask secretory glycoprotein involved in a wide range of physiological functions, starting from delicate iron homeostasis, growth, differentiation, to an array of cytoprotective activities including apoptosis. It has high affinity binding sites for iron and thereby maintains a safe level of free iron in body tissues. Iron binding to Tsf creates a physiological ambience for the smooth functioning of cellular processes and at the same time it provides a bacteriostatic environment by limiting the availability of iron, essentially required for the multiplication of pathogens. Tsf has been well characterized in many multicellular animals and some insect families.

REFERENCES:

1. Dutta, A., Dandapat, J. and Mohanty, N. (2019) First report on transferrin in the silkworm, Antheraea mylitta, with a putative role in antioxidant defense: Insights from proteomic analysis and immune detection. Comparative Biochemistry and Physiology Part B. 233: 23-34.

2. Geiser, D. L.,Winzerling, J. J. (2012) Insect transferrins: multifunctional proteins. Biochim Biophys Acta. 1820: 437-51.

Product Info

Amount :	25 µg / 100 µg
Purification :	Protein A Chromatography
Content :	25 µg in 50 µl/100 µg in 200 µl PBS containing 0.05% BSA and 0.05% sodium azide. Sodium azide is highly toxic.
Storage condition :	Store the antibody at 4°C; stable for 6 months. For long-term storage; store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

Transferrin antibody is highly recommended for the detection of transferrin in silkworm Antheraea mylitta, Spodoptera litura, Leucinodes orbonalis, Drosophilla melanogaster, Apis cerana indica, Drosophilla melanogaster and Rattus norvegicus. Transferrin is detected by western blotting in all the above species. Transferrin is also detected in all tissues and cells of silkworm Antheraea mylitta by western blotting, Immunofluorescence and immunohistochemistry. Molecular weight of transferrin is 75 kDa.

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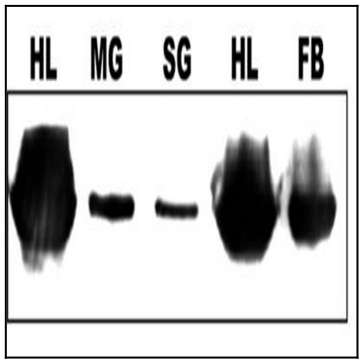

Figure-1: Western blot image of transferrin in different tissues of Antheraea mylitta. Lane-1: Larval hemolymph (HL); Lane-2: Larval mid gut (MG); Lane-3: Larval silk gland (SG); Lane-4: Pupal hemolymph (HL) and Lane-5: Pupal fat body (FB). Dutta et al.,2019

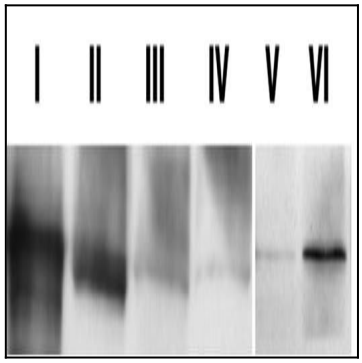

Figure-2: Western blot image of cross reactivity of Antheraea mylitta derived Transferrin antibody with the whole body tissue lysate of (I) Spodoptera litura, (II) Leucinodes orbonalis, (III) Apis cerana indica, (IV) liver of Rattus norvegicus, (V) Drosophilla melanogaster male and (VI) Drosophilla melanogaster Female. Dutta et al.,2019

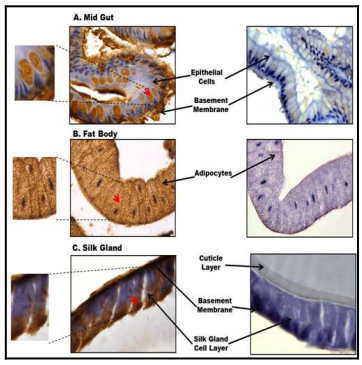

Figure-3: Immunohistochemical detection of Transferrin in mid gut (A), fat body (B) and silk gland (C) of Antharaea mylitta by transferrin antibody. Dutta et al.,2019

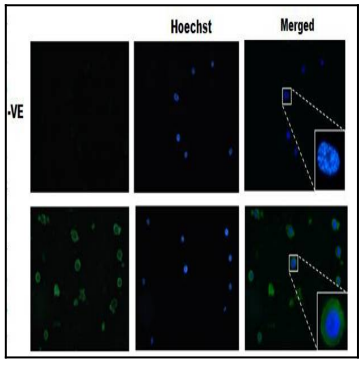

Figure-4: Immunofluorescence analysis of transferrin in the hemocytes of Antheraea mylitta.by transferrin antibody. Dutta et al.,2019

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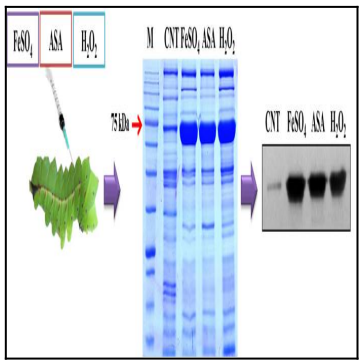

Figure-5: Western blot image of transferrin expression in the hemolymph of Antheraea mylitta in response to known inducer of oxidative stress (FeSO4, ASA and H2O2). CNT: Control. Dutta et al.,2019