Product Data Sheet

Product number: **A139, A140, A141, A157, A158, A165, A166**
Revision number: RN2.2

Product Name Monoclonal antibody to human TG6

Host Mouse

Immunogen Human neuronal transglutaminase (full length protein with N-terminal hexahistidin-tag) recombinantly produced in insect cells (Zedira product No. T021)

Product number	A139	A140	A141	A157	A158	A165	A166
Clone	XTG52	XTG39	XTG68	XTG10	XTG29	XTG60	XTG71
hT6-domain-specificity	Catalytic	β-barrel 1	β-barrel 1	β-barrel 1	β-barrel 2	tbd	tbd
Subtype	IgG2a	IgG2a	IgG2b	IgG2b	IgG1	tbd	tbd
Suitable for Western Blot	✓	✓	✓	✓	✓	✓	✓
Suitable for ELISA	✓	✓	✓	✓	✓	✓	✓
Immunofluorescence	tbd	tbd	tbd	tbd	tbd	tbd	tbd

Formulation 75 mM NaCl, 5 mM Tris, pH7.5, 0.025% sodium azide, 50% glycerol.

Appearance liquid

Working dilutions Optimal dilutions should be determined by the end user.
E.g. for Western-Blotting or ELISA: 1 / 500 to 1 / 5,000 should be suitable

Storage Store at -80°C.

If storage at -80°C is not possible, storage at ≤ -20°C is recommended.
Stable for short term at +4°C.

Delivery is possible at ambient temperature.

Related products

A031 FITC-labeled polyclonal antibody to human TG6
A156 Polyclonal antibody to human transglutaminase 6 (TG6)

P111 PEPperCHIP® Transglutaminase Microarray

T021 human neuronal transglutaminase
T064 Inhibited human neuronal transglutaminase
T141 Biotinylated human neuronal transglutaminase

Release date 07 February 2022

NOTE INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATI ONS.

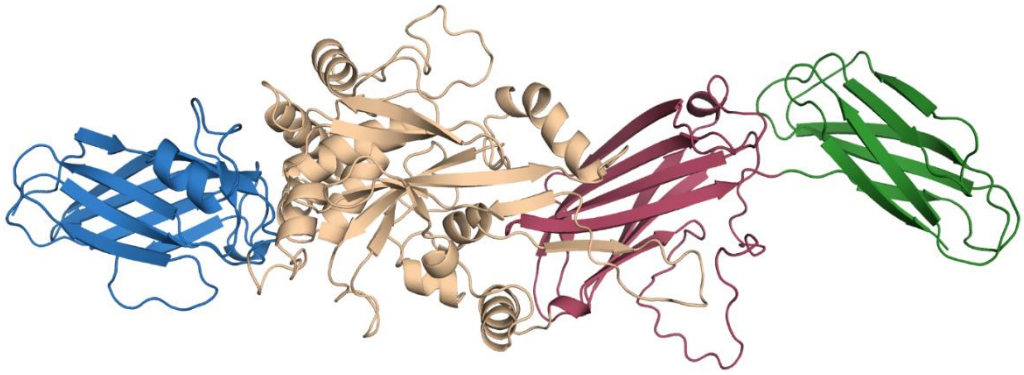
Background info

Neuronal transglutaminase is a, Ca^{2+}-dependent enzyme (79 kDa) composed by 4 domains: Beta Sheet Domain (~15 kDa), Catalytic Domain (Cys-His-Asp catalytic triad, ~37 kDa), Beta Barrel 1 Domain (~16 kDa) and Beta Barrel 2 Domain (~11 kDa).

TG6 sequence deduced from human (TGM6 GenBank: AF540969.1)

MAGIRVTKVDWQRSRNGAAHHTQEYPCPELVVRRGQSFSLTLELSRALDCEEILIFTVETGPRASEALH
TKAVFQTSELERGEGWTAAREAQMEKTLTVSLASPPSAVIGRYLLSIRLSSHRKHSNRRLGEFVLLFNP
WCAEDDVFLASEEERQEYVLSDSGIIFRGVEKHIRAQGWNYGQFEEDILNICLSILDRSPGHQNNPATD
VSCRHNPIYVTRVISAMVNSNNDRGVVQGQWQGKYGGGTSPLHWRGSVAILQKWLKGRYKPVKYGQCWV
FAGVLCTVLRCLGIATRVVSNFNSAHDTDQNLSVDKYVDSFGRTLEDLTEDSMWNFHVWNESWFARQDL
GPSYNGWQVLDATPQEESEGVFRCGPASVTAIREGDVHLAHDGPFVFAEVNADYITWLWHEDESRERVY
SNTKKIGRCISTKAVGSDSRVDITDLYKYPEGSRKERQVYSKAVNRLFGVEASGRRIWIRRAGGRCLWR
DDLLEPATKPSIAGKFKVLEPPMLGHDLRLALCLANLTSRAQRVRVNLSGATILYTRKPVAEILHESHA
VRLGPQEEKRIPITISYSKYKEDLTEDKKILLAAMCLVTKGEKLLVEKDITLEDFITIKVLGPAMVGVA
VTVEVTVVNPLIERVKDCALMVEGSGLLQEQLSIDVPTLEPQERASVQFDITPSKSGPRQLQVDLVSPH
FPDIKGFVIVHVATAK

Sequence colour	Domain	monoclonal antibody recognition site
Blue:	Beta Sheet Domain	
Yellow:	Catalytic Core Domain	A139
Pink:	Beta Barrel 1 Domain	A140, A141, A157
Green:	Beta Barrel 2 Domain	A158



Model of structure of TG6 in ‘open’ conformation. An alignment of human TG6 and TG2, generated using CLUSTAL omega, was used to generate a homology model in SWISS model from available X-ray coordinates for human TG2 (PDB 2Q3Z) (courtesy S. Turberville and D. Aeschlimann, Cardiff University, UK).