

U-Blot[®] Pan-Methacrylysine Mouse mAb (WT9177R)

User Manual

General Information

Product name	U-Blot [®] Pan-Methacrylysine Mouse mAb
Product No.	WT9177R
Clonality	Recombinant monoclonal
Clone Number	W-R84
Alternative name	Kmea

Key Features

Target	Methacryloyllysine
Reactivity	Human, Mouse, Rat
Applications	WB, IHC-P
MW(Calculated)	Multiple
MW(Observed)	Multiple
Host Species	Mouse
Isotype	IgG
Conjugate	Unconjugated
Modification	Lysine methacryloylation
Purification	Protein G and immunogen affinity purified
Immunogen	polypeptide

Storage Information

Storage	Store at -20°C. Avoid repeated freeze-thaw cycles
Stability	Stable for 12 months from date of receipt / reconstitution.
Formulation	PBS, Glycerol, BSA

Product Usage Information

Applications	Dilution	Recommended Species
WB	1:500-1000	All
IHC-P	1:500-2000	Human, Mouse, Rat

Target Information

Background

Histones are subjected to a variety of enzyme catalyzed modifications, including acetylation, methylation, phosphorylation, ubiquitylation, etc. Histone lysine methacrylation (Kmea) is a novel post-translational modification of proteins. It is a structural isomer of crotonylation, but they differ in mechanism and function. Specifically, methacrylate is the metabolic precursor of Kmea, and HAT1, SIRT1 and SIRT2 are the writer and eraser of Kmea respectively. In addition, 27 histone Kmea sites were identified in HeLa cells. Leigh syndrome is a neurological disease characterized by mitochondrial defects. Due to the genetic mutations of ECHS1 and Hibch enzymes in the metabolic approach of pyruvate, causing the accumulation of methacrylyl-coA in patients with these mutations. The discovery of Kmea suggests a new direction for the pathological role of methacrylyl-coA accumulation.

Cellular Localization

For Research Use Only. Not for Use in Diagnostic Procedures.