NY-ESO-1 (D1Q2U) Rabbit mAb

For Research Use Only. Not For Use In Diagnostic Procedures.

**Applications**
- W—Western
- IP—Immunoprecipitation
- IF-IC—Immunofluorescence
- F—Flow cytometry

**Species Cross-Reactivity**
- H—Human
- M—Mouse
- R—Rat
- Hm—Hamster
- C—Chicken
- Dm—Drosophila
- X—Xenopus
- B—Bovine
- Dg—Dog
- Pg—Pig
- Se—S. cerevisiae
- Ce—C. elegans
- Mm—Mm
- All—All species expected

**Molecular Wt.**
- 19,732-35
- 20,1600
- 40 (dimer) kDa

**Isotype**
- Rabbit IgG

**Recommended Antibody Dilutions**
- Western blotting
  - 1:1000
- Immunoprecipitation
  - 1:100
- Immunofluorescence (IF-IC)
  - 1:1600
- Flow Cytometry
  - 1:400

**Storage**
- Stored at -20°C

**Handle as a hazardous agent when removing or handling the product.**

**Background**

**Cancer/testis antigens (CTAs)** are a family of more than 100 proteins whose normal expression is largely restricted to immune privileged germ cells of the testis, ovary, and trophoblast cells of the placenta. Although most normal somatic tissues are void of CTA expression, due to epigenetic silencing of gene expression, their expression is upregulated in a wide variety of human solid and liquid tumors (1,2). As such, CTAs have garnered much attention as attractive targets for a variety of immunotherapy-based approaches to selectively attack tumors (3). New York esophageal squamous cell carcinoma-1 (NY-ESO-1) is an X-linked CTA and was first identified by serological analysis of cDNA expression libraries in esophageal carcinoma (SEREX) (4,5). Like other CTAs, NY-ESO-1 expression is repressed in normal somatic tissues but becomes derepressed in a variety of human cancer types, such as multiple myeloma, non-small cell lung carcinoma, liposarcoma, and melanoma (6,7). Although the biological function of NY-ESO-1 remains enigmatic, its tumor-restricted expression pattern and high degree of immunogenicity have positioned it as a prominent target of immunotherapy-based strategies for tumor eradication (8).

**Specificity/Sensitivity**

NY-ESO-1 (D1Q2U) Rabbit mAb recognizes endogenous levels of total NY-ESO-1 protein. This antibody cross-reacts with NY-ESO-2/LAGE-1S.

**Source/Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human NY-ESO-1 protein, isoform 1.

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**
- Western blotting: 1:1000
- Immunoprecipitation: 1:100
- Immunofluorescence (IF-IC): 1:1600
- Flow Cytometry: 1:400

**For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com**

**Background References:**


**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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**UniProt ID #P78358**

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Western blot analysis of extracts from 293T cells, mock transfected (-) or transfected with constructs expressing full-length human NY-ESO-1 (hNY-ESO-1; +) and full-length human NY-ESO-2/LAGE-1S (hNY-ESO-2; +), using NY-ESO-1 (D1Q2U) Rabbit mAb (upper) and GAPDH (D16H11) XP® Rabbit mAb #5174 (lower).

Immunoprecipitation of NY-ESO-1 from HT-1080 cell extracts. Lane 1 is 10% input, lane 2 is Rabbit (DA1E) mAb IgG XP® Isotype Control #3900, and lane3 is NY-ESO-1 (D1Q2U) Rabbit mAb. Anti-Rabbit HRP-conjugated light-chain-specific secondary antibody was used for detection.

Flow cytometric analysis of Jurkat cells (blue) and U266 cells (green) using NY-ESO-1 (D1Q2U) Rabbit mAb. Anti-rabbit IgG (H+L), F(ab')2 Fragment (Alexa Fluor® 488 Conjugate) #4412 was used as a secondary antibody.

Confocal immunofluorescent analysis of HT-1080 (left, positive) and HeLa (right, negative) cells using NY-ESO-1 (D1Q2U) Rabbit mAb (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).