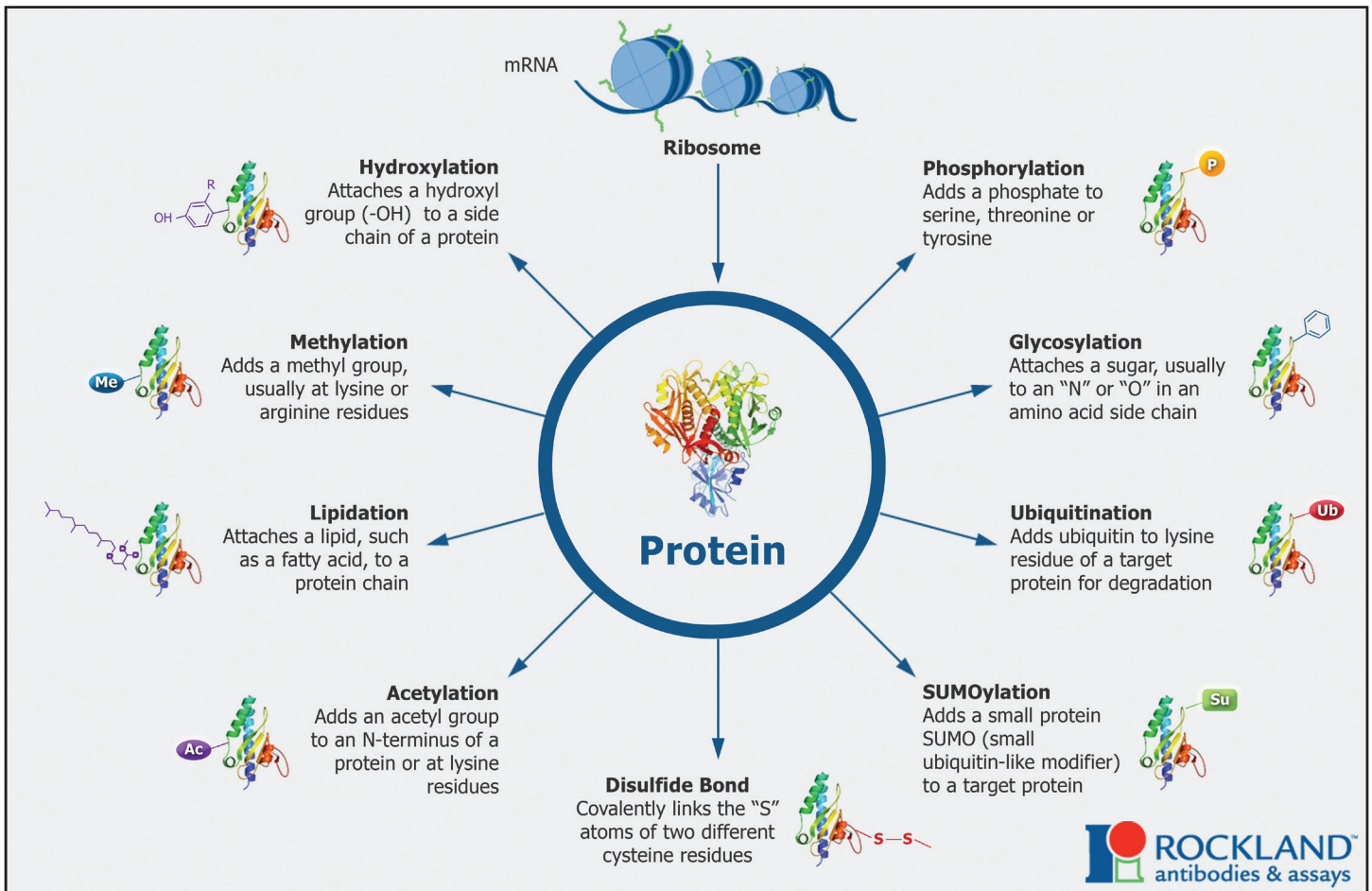


Post-Translational Modification Antibodies

PTM antibodies target the chemical changes on proteins, DNA and RNA as a result of a covalent attachment. PTM antibodies can also be used to identify and purify protein-protein, protein-DNA and/or protein-RNA complexes containing the modified protein.

Although the generation of PTM antibodies is challenging, at Rockland Immunochemicals scientists have developed proprietary methods for the development of highly specific PTM antibodies that can be used in a wide range of in vitro and in vivo studies of a modified protein, some of which are not easily performed.



Highly specific, highly sensitive antibodies that recognize PTM's

Quality control procedures to ensure reproducibility

Validated by researchers at prestigious academic institutions

Rockland has supplemental products needed for your PTM assays

Tips for Selecting an Antibody to Your PTM

Preparation

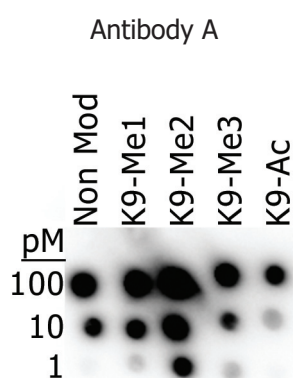
From an antibody production point of view the differences between modified proteins can be quite small. Peptide design and immunogen quality are critical to generate a specific immune response to ensure to the production of high quality antibodies.

Production

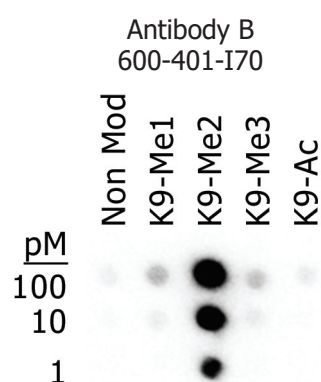
Antibodies against PTMs are generated against a short, specific region of the protein, largely eliminating the issue of specificity compared to antibodies generated using large constructs as immunogens. However, it is critical that the antibody is tested against established positive and negative controls to ensure specificity for the modification. Polyclonal antibodies can be immunodepleted during production if the sample contains antibodies that recognize other PTMs.

Validation

Dot blot assays or ELISAs can be used to assess both antibody specificity and sensitivity. However, in addition to being specific for the required modification, the antibody must be validated for the application of choice using appropriate positive and negative controls.



Antibody A shows preference towards K9Me2. This antibody shows higher reactivity towards the post translational modification, but at higher concentrations does not distinguish between non-modified and specific modification at amino acid K9.



Antibody B is highly specific for K9Me2. The sensitivity of antibody B goes to the low Pico-molar range. Even in high concentrations the antibody does not cross react with any other modifications of K9. Antibody B is highly specific while maintaining high sensitivity.

Name	Application	Catalog No.
ATM pS1981 Antibody	ELISA, WB, IHC, IF	200-301-400
Myosin phospho S19/phospho S20 Antibody	ELISA, WB, IP, IHC	600-401-416
SMAD3 phospho S423/phospho S425 Antibody	ELISA, WB, IHC, IF, Flow	600-401-919
H3K27me3 (RABBIT) Antibody	ELISA, WB, IHC, Flow	600-401-J99
Lysine Methylated Antibody	ELISA, WB	600-401-940
Histone H3 K4me3 Antibody	ELISA, WB, IHC, IF, Flow	600-401-I59
Histone H3 K36ac Antibody	WB, IHC, IF	600-401-I89
Lysine Acetylated Antibody	ELISA, WB, IP, IHC, IF, Flow	600-401-939
Ubiquitin Antibody	ELISA, WB	200-301-G62

