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Loading Control Antibody Sampler Kit (Mouse)

1 Kit (3 x 20 microliters)

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

| Product Includes | Product # | Quantity | Mol. Wt | Isotype/Source |
|-------------------------------------|-----------|----------|---------|----------------|
| β-Actin (8H10D10) Mouse mAb | 3700 | 20 μl | 45 kDa | Mouse IgG2b |
| α-Tubulin (DM1A) Mouse mAb | 3873 | 20 μl | 52 kDa | Mouse IgG1 |
| Histone H3 (96C10) Mouse mAb | 3638 | 20 μl | 17 kDa | Mouse IgG1 |
| Anti-mouse IgG, HRP-linked Antibody | 7076 | 100 μl | | Horse |

Please visit cellsignal.com for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

Description

The Loading Control Antibody Sampler Kit provides an economical means to detect a variety of housekeeping proteins. The kit contains enough primary and secondary antibodies to perform two western blot experiments.

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.

Background

Housekeeping proteins perform numerous basic functions within the cell and are constitutively expressed at high levels in a variety of tissues and cell types. Western blot analysis commonly uses housekeeping proteins such as β-actin, histone H3, and α-tubulin as loading controls. Actin is a ubiquitous protein and a major component of the eukaryotic cytoskeleton. Actin exists mainly as the F-actin fibrous polymer (1). Globular tubulin subunits made up of α- and β-tubulin heterodimers are the building blocks of microtubules, one of three types of cytosolic fibers that comprise the cytoskeleton (2). Histone proteins, including histone H3, make up the primary building block of chromatin known as nucleosomes. Modulation of the chromatin structure plays an important role in the regulation of transcription in eukaryotes (3).

Background References

1. Condeelis, J. (2001) *Trends Cell Biol* 11, 288-93.
2. Westermann, S. and Weber, K. (2003) *Nat Rev Mol Cell Biol* 4, 938-47.
3. Workman, J.L. and Kingston, R.E. (1998) *Annu Rev Biochem* 67, 545-79.

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