

# Standardize Your Kinase Assays



## Technical Bulletin

### Using Myelin Basic Protein (MBP) for Effective Cell Signaling Research

Purified Myelin Basic Protein (MBP) is an effective substrate for many human kinases, making it a versatile tool for exploring mechanisms in signal transduction.

MBP is a phosphoprotein targeted by serine/threonine and tyrosine kinases at several conserved amino acid residues (1-5). Hundreds of publications have cited the use of MBP as an appropriate kinase substrate, providing a 'universal' standard for testing kinase activity in both basic research and drug discovery.

Save time and effort using high-quality native or recombinant MBP substrates, to standardize your kinase assays.

#### References:

1. Turner RS et al., *Phospholipid-sensitive Ca<sup>2+</sup>-dependent protein kinase preferentially phosphorylates serine-115 of bovine myelin basic protein.* *J Neurochem.* 1984 Nov;43(5):1257-64.
2. Turner RS et al., *Substrate specificity of phospholipid/Ca<sup>2+</sup>-dependent protein kinase as probed with synthetic peptide fragments of the bovine myelin basic protein.* *J Biol Chem.* 1985 Sep 25;260(21):11503-7.
3. Turner RS et al., *Phospholipid-sensitive Ca<sup>2+</sup>-dependent protein kinase preferentially phosphorylates serine-115 of bovine myelin basic protein.* *J Neurochem.* 1984 Nov;43(5):1257-64.
4. Kim SJ et al., *Insulin-sensitive myelin basic protein phosphorylation on tyrosine residues.* *Biochem Biophys Res Commun.* 1991 Aug 30;179(1):392-400.
5. Sanghera JS et al., *Identification of the sites in myelin basic protein that are phosphorylated by meiosis-activated protein kinase p44mpk.* *FEBS Lett.* 1990 Oct 29;273(1-2):223-6.

#### Broad Kinase Specificity

- >125 Serine/Threonine Kinases with Defined Assays
- Tyrosine Kinases
- Tested With All of SignalChem's Over 700 Kinases

#### Dependable Performance

- >90% Average Purity
- High Activity
- Lot-to-Lot Consistency

