

## BCA 蛋白浓度测定法的兼容性列表

### Compatibility Chart for BCA Kit

The amount listed is the maximum amount of material allowed in the protein sample without causing a noticeable interference, when 20 ul protein sample is used for BCA assay as described in the standard assay.

#### Incompatible Substances/Amount Compatible

Buffer Systems	
N-Acetylglucosamine (10 mM) in PBS, pH 7.2	10 mM
ACES, pH 7.8	25 mM
Bicine, pH 8.4	20 mM
Bis-Tris, pH 6.5	33 mM
CellLytic B Reagent undiluted	no interference
Calcium chloride in TBS, pH 7.2	10 mM
CHES, pH 9.0	100 mM
Cobalt chloride in TBS, pH 7.2	0.8 M
EPPS, pH 8.0	100 mM
Ferric chloride in TBS, pH 7.2	10 mM
HEPES	100 mM
MOPS, pH 7.2	100 mM
Nickel chloride in TBS	10 mM
PBS; Phosphate (0.1 M)	0.1 M
NaCl (0.15 M), pH 7.2 undiluted	no interference
PIPES, pH 6.8	100 mM
Sodium acetate, pH 4.8	200 mM
Sodium citrate, pH 4.8 or pH 6.4	200 mM
Tricine, pH 8.0	25 mM
Triethanolamine, pH 7.8	25 mM
Tris	250 mM
TBS; Tris (25 mM), NaCl (0.15 M), pH 7.6 undiluted	no interference
Tris (25 mM), Glycine (1.92 M), SDS (0.1%), pH 8.3, undiluted	no interference
Zinc chloride (10 mM) in TBS, pH 7.2	10 mM



Buffer Additives	
Ammonium sulfate	1.5 mM
Aprotinin	10 mg/L
Cesium bicarbonate	100 mM
Glucose	10 mM
Glycerol	10%
Guanidine•HCl	4 M
Hydrochloric acid	100 mM
Imidazole	50 mM
Leupeptin	10 mg/L
PMSF	1 mM
Sodium azide	0.20%
Sodium bicarbonate	100 mM
Sodium chloride	1 M
Sodium hydroxide	100 mM
Sodium phosphate	25 mM
Sucrose	40%
TLCK	0.1 mg/L
TPCK	0.1 mg/L
Sodium ortho-Vanadate in PBS, pH 7.2	1 mM
Thimerosal	0.01%
Urea	3 M

Chelating agents	
EDTA	10 mM
EGTA	not compatible
Sodium citrate	200 mM

Detergents	
Brij-35	5%
Brij-52	1%
CHAPS	5%
CHAPSO	5%
Deoxycholic acid	5%
Nonidet P-40 (Igepal CA-630)	5%
Octyl <sup>®</sup> -glucoside	5%
Octyl <sup>®</sup> -thioglucopyranoside	5%
SDS	5%
Span 20	1%
Triton X-100	5%
Triton X-114	1%



Triton X-305	1%
Triton X-405	1%
Tween 20	5%
Tween 60	5%
Tween 80	5%
X-Dodecyl	1%
Zwittergents	1%

**Reducing & Thiol Containing Agents**

Dithioerythritol (DTE)	1 mM
Dithiothreitol (DTT)	1 mM
2-Mercaptoethanol	1 mM
Tributyl Phosphine	0.01%

**Solvents**

Acetone	10%
Acetonitrile	10%
DMF	1 mM
DMSO	10%
Ethanol	10%
Methanol	10%

**Note:** This is not a complete compatibility chart. There are many substances that can affect different proteins in different ways. One may assay the protein of interest in deionized water alone, then in the buffer with possible interfering substances. Comparison of the readings will indicate if an interference exists.

**Note:** Reagents that chelate metal ions, change the pH of the assay, or reduce copper will interfere with the BCA assay. Examples are shown below:

1. Metal chelators such as EDTA (> 10 mM) and EGTA (any level).
2. Thiol containing reagents such as cysteine (any level), DTT (> 1 mM), dithioerythritol(> 1 mM), and 2-mercaptoethanol (> 0.01%).
3. High salt or buffers concentrations such as ammonium sulfate (> 1.5 M), Tris (>0.25 M), and sodium phosphate (> 0.1 M).