

Buffer Compositions for Fusion Tag Affinity Purification

Fusion Tag	Support(s)	Affinity Basis	Bind	Wash	Elution
CBD•Tag™ (all)	CBinD™ Resin CBinD™ ReadyRun™ Column CBinD™ 300, 900 Cartridge	Cellulose binding domain	20 mM Tris-HCl, pH 7.5	20 mM Tris-HCl, pH 7.5 800 mM NaCl	100% Ethylene glycol
GST•Tag™ ²	GST•Bind™ Resin	Glutathione	PBS ¹ , pH 7.3	PBS ¹ , pH 7.3	50 mM Tris-HCl, pH 8.0 10 mM reduced glutathione
His•Tag® (native) ³	Ni-NTA His•Bind® Resin Ni-NTA His•Bind® Superflow™	Nitriloacetic acid (NTA)–Ni ²⁺ immobilized metal affinity	50 mM NaH ₂ PO ₄ 300 mM NaCl 10 mM imidazole pH 8.0	50 mM NaH ₂ PO ₄ 300 mM NaCl 20 mM imidazole pH 8.0	50 mM NaH ₂ PO ₄ 300 mM NaCl 250 mM imidazole pH 8.0
	His•Bind Resin His•Bind Fractogel® His•Bind Quick (all) His•Bind Magnetic Agarose	Iminodiacetic acid (IDA)–Ni ²⁺ immobilized metal affinity	20 mM Tris-HCl 500 mM NaCl 5 mM imidazole pH 7.9	20 mM Tris-HCl 500 mM NaCl 60 mM imidazole pH 7.9	20 mM Tris-HCl 500 mM NaCl 1 M imidazole pH 7.9
His•Tag (denaturing)	Ni-NTA His•Bind® Resin Ni-NTA His•Bind® Superflow™	Nitriloacetic acid (NTA)–Ni ²⁺ immobilized metal affinity	100 mM NaH ₂ PO ₄ 10 mM Tris-HCl 6 M GuHCl or 8 M urea pH 8.0	100 mM NaH ₂ PO ₄ 10 mM Tris-HCl 6 M GuHCl or 8 M urea pH 6.3	100 mM NaH ₂ PO ₄ 10 mM Tris-HCl 6 M GuHCl or 8 M urea pH 5.9 or pH 4.5
	His•Bind Resin His•Bind Fractogel® His•Bind Quick (all) His•Bind Magnetic Agarose	Iminodiacetic acid (IDA)–Ni ²⁺ immobilized metal affinity	20 mM Tris-HCl 500 mM NaCl 5 mM imidazole 6 M GuHCl or 8 M urea pH 7.9	20 mM Tris-HCl 500 mM NaCl 60 mM imidazole 6 M GuHCl or 8 M urea pH 7.9	20 mM Tris-HCl 500 mM NaCl 1 M imidazole 6 M GuHCl or 8 M urea pH 7.9
S•Tag™ ⁴	S-protein Agarose	S-protein	20 mM Tris-HCl 150 mM NaCl 1% Triton X-100 pH 7.5	20 mM Tris-HCl 150 mM NaCl 1% Triton X-100 pH 7.5	3 M NaSCN, or 3 M MgCl ₂ , or 200 mM citrate, pH 2
T7•Tag® (native) ⁵	T7•Tag Agarose	Antibody	PBS ¹ , pH 7.3 1% Tween 20 0.02% sodium azide	PBS ¹ , pH 7.3 1% Tween 20 0.02% sodium azide	100 mM citrate, pH 2.2
T7•Tag® (denaturing)	T7•Tag Agarose	Antibody	PBS ¹ , pH 7.3 1% Tween 20 0.02% sodium azide 2 M urea	PBS ¹ , pH 7.3 1% Tween 20 0.02% sodium azide 2 M urea	100 mM citrate, pH 2.2 2 M urea

1. PBS is 4.3 mM Na₂HPO₄, 1.47 mM KH₂PO₄, 137 mM NaCl, 2.7 mM KCl. The pH should be 7.3 with no adjustments.

2. Solutions as listed are available in the GST•Bind Buffer Kit.

3. Solutions as listed for purification of His•Tag fusion proteins under native conditions are available in the Ni-NTA Buffer Kit, His•Bind Buffer Kit, and His•Bind Quick Buffer Kit.

4. Bind/Wash Buffer is included with the S•Tag Thrombin and S•Tag rEK Purification Kits. Elution under native conditions can be performed with appropriate constructs by site-specific protease cleavage.

5. Solutions as listed, plus T7•Tag Neutralization Buffer for neutralizing samples after elution, are included in the T7•Tag Affinity Purification Kit.