LigaTrap® Mouse IgG Loose Resin Protocol

Introduction

LigaTrap® Technologies has developed a novel, patented, series of affinity ligands specific for the purification of monoclonal and polyclonal immunoglobulins from various species. **LigaTrap® Mouse IgG Purification resin is capable of binding ≥ 20mg mouse IgG/ml resin.**

Chromatographic Buffers:

Part #	Name	Composition
BU-131-FP	**LigaTrap Sample Diluent 2.0**	50mg/ml Adipic Acid, 4.0M NaCl, pH 5.8
BU-132-FP	**LigaTrap Equilibration/Wash Buffer 2.0**	10mg/ml Adipic Acid, 800mM NaCl, pH 5.8
BU-123-FP	**LigaTrap Elution Buffer**	0.1M Sodium Acetate, pH 4.0
BU-124-FP	**LigaTrap Regeneration Buffer**	0.1M Glycine, pH 2.5
BU-125-FP	**LigaTrap Neutralization Buffer**	3.0M Tris-Base, pH 11.1
BU-126-FP	**LigaTrap Storage Buffer**	10mM Sodium Phosphate, 0.15M NaCl, 0.05% Sodium Azide, pH 7.2

Note: Adipic Acid can be purchased from Sigma (A26357-500G)

Note*:* **Adipic Acid is insoluble at low pH**. It will solubilize as the pH increases to > 5.0. For example, after adding all components of LigaTrap Sample Diluent 2.0 Buffer, a 500ml batch will require ~60mL of 5N NaOH to begin dissolving the adipic acid. Continue to titrate with NaOH until a final pH of 5.8 is achieved. Then QS to the desired volume.

Note: For best results, **titrate LigaTrap® Elution Buffer with Glacial Acetic Acid**

Note: To limit precipitation of Tris-Base, **store LigaTrap Neutralization Buffer at room temperature**.

Prepare Sample For Binding:

1. Add the **LigaTrap Sample Diluent 2.0** to the sample containing mouse IgG at a ratio of 1:4 (Example: Add 2ml LT Sample Diluent 2.0 to 8ml of sample, or 200ml to 800ml of sample, etc...)

Chromatographic Protocol: **Pressure Max = 5 Bar/0.5MPa**

➢ Pack the appropriately sized column volume (CV), for your particular application.
➢ Recommend 5 minute residence time for all chromatographic steps

1. Equilibrate the resin with 10-20 CV of **LigaTrap Equilibration/Wash Buffer 2.0 (BU-132-FP)**

2. Load the "prepared" sample (described above)

3. Wash the resin with 15CV (if Phenol Red is present in sample wash with 30-35CV to completely wash out color) of **LigaTrap Equilibration/Wash Buffer 2.0 (BU-132-FP)**

4. Elute bound antibody with 10 CV of **LigaTrap Elution Buffer (BU-123-FP)**. Note, for higher concentration antibody elute with 5 CV, but if higher yields are desired, use 10 CV. Neutralize with 10-12% v/v of **LigaTrap Neutralization Buffer**.

5. Regenerate the column with 10 CV of **LigaTrap Regeneration Buffer (BU-124-FP)**

6. Re-Equilibrate the resin with 10 CV **LigaTrap Equilibration/Wash Buffer 2.0 (BU-132-FP)** if an additional purification cycle will be done.

7. If purification is complete, store the resin by running 5 CV of **LigaTrap Storage Buffer (BU-126-FP)** over the column. Or if sanitization is desired, run 0.5M Sodium Hydroxide (NaOH) over resin with a contact time of 20-30 minutes followed by 10CV of **LigaTrap Storage Buffer (BU-126-FP)**.

Other LigaTrap® Products

Target Species	Isotype	Part Number		
		Prepacked Columns	**5mL Loose Resin**	**Purification Spin Column Kit**
Human	IgG	LT-095-1x1ml LT-095-3x1ml LT-095-1x5ml	LT-095	LT-095KIT
	IgM	LT-143-1x1ml LT-143-3x1ml LT-143-1x5ml	LT-143	LT-143KIT
	IgA	LT-146-1x1ml LT-146-3x1ml LT-146-1x5ml	LT-146	LT-146KIT
Mouse	IgG	LT-137-1x1ml LT-137-3x1ml LT-137-1x5ml	LT-137	LT-137KIT
	IgM	LT-145-1x1ml LT-145-3x1ml LT-145-1x5ml	LT-145	LT-145KIT
Rat	IgG	LT-138-1x1ml LT-138-3x1ml LT-138-1x5ml	LT-138	LT-138KIT
	IgM	LT-147-1x1ml LT-147-3x1ml LT-147-1x5ml	LT-147	LT-147KIT
Sheep	IgG	LT-141-1x1ml LT-141-3x1ml LT-141-1x5ml	LT-141	LT-141KIT
Llama	IgG	LT-144-1x1ml LT-144-3x1ml LT-144-1x5ml	LT-144	LT-144KIT
Goat	IgG	LT-136-1x1ml LT-136-3x1ml LT-136-1x5ml	LT-136	LT-136KIT
Rabbit	IgG	LT-139-1x1ml LT-139-3x1ml LT-139-1x5ml	LT-139	LT-139KIT
Chicken	IgY	LT-142-1x1ml LT-142-3x1ml LT-142-1x5ml	LT-142	LT-142KIT

For further product information please visit our website at **LigaTrap.com**. For technical support and questions email us at *techsupport@ligatrap.com*