

Materials List for:

# An Optimized Protocol for Electrophoretic Mobility Shift Assay Using Infrared Fluorescent Dye-labeled Oligonucleotides

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## Materials

| Name   | Company                     | Catalog Number                      | Comments  |
|--|-----------------------------|-------------------------------------|---|
| 30% Acrylamide/Bis Solution, 37.5:1                | Bio-Rad                     | 1610158                             | Acrylamide is harmful and toxic.  |
| 6x-His Epitope Tag Antibody (HIS.H8)               | ThermoFisher                | MA1-21315                           |   |
| Anti-Flag M2 antibody                              | Sigma-Aldrich               | F3165-.2MG                          |   |
| Bovine Serum Albumin (BSA) molecular biology grade | New England Biolabs         | B9000S                              |   |
| 5'IRDye700-labeled DNA Oligos                      | Integrated DNA Technologies | Custom DNA oligo                    | These are referred to as "5'Dye-labeled or infrared fluorescent dye-labeled DNA oligos" in the manuscript. The company will custom synthesize 5' IRDye labeled-DNA oligonucleotides. Requires minimum 100 µM scale synthesis and HPLC purification. |
| Klenow Fragment (3'-->5' exo-)                     | New England Biolabs         | M0212S                              |   |
| LightShif Poly (dI-dC)                             | ThermoFisher                | 20148E                              |   |
| Mini-PROTEAN Vertical Electrophoresis Cell         | Bio-Rad                     | 1658000FC                           | This is referred to as a 'mini protein gel system' in the manuscript. Any electrophoretic system can be used as long as they are clear glass plates of less than 25 cm x 25 cm in size.   |
| Odyssey CLx Infrared Imaging System                | LI-COR Biotechnology        | Odyssey CLx Infrared Imagng System  | This is referred to as an 'advanced infrared imaging system' in the manuscript.   |
| Odyssey Fc Imaging System                          | LI-COR Biotechnology        | Odyssey Fc Dual-Mode Imaging System | This is referred as a 'near-infrared fluorescent imaging system primarily for Western blots' in the manuscript.   |
| Image Studio software (version 4.0)                | LI-COR Biotechnology        | Image Studio software               | This is referred to as a 'particular imaging software' in the manuscript.   |
| Orange G   | Sigma-Aldrich               | O3756-25G                           |   |
| 6x Orange loading dye                              |                             |                                     | 0.25% Orange G; 30% Glycerol  |
| 0.5x TBE   |                             |                                     | 45 mM Tris-Borate; 1 mM EDTA  |
| 1x TE  |                             |                                     | 10 mM Tris-HCl, pH 8.0; 1 mM EDTA   |
| 1x STE   |                             |                                     | 100 mM NaCl; 10 mM Tris-HCl, pH 8.0; 1 mM EDTA  |
| 5x Binding Buffer                                  |                             |                                     | 50 mM Tris-HCl, pH 7.5; 50 mM NaCl; 200 mM KCl; 5 mM MgCl <sub>2</sub> ; 5  |

|  |  |   |
|--|--|---|
|  |  | mM EDTA, pH 8.0; 5 mM DTT; 250 $\mu$ g/mL BSA |
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