EXREsolve FlexKD Color PAGE Gel - Red

Catalog Number: EXBR002

For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

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Product Description

Exreprotein™ EXREsolve FlexKD Color PAGE Gel kit features low acrylamide concentration and has been optimized for this low acrylamide concentration with an enhanced polymerization rate using TEMED-free solutions. Protein gel preparation is conveniently completed in 25 minutes by preparing the resolving gel and stacking gel simultaneously, taking advantage of the enhanced polymerization rate. Rapid protein gel electrophoresis can be completed in about 25 minutes at 300V constant high voltage or, alternatively, at lower voltages with slower running times. The kit is suitable for separation and identification of proteins between 10-250 kDa without adjusting the resolving gel concentration according to protein molecular weight. The color stacking gel is easy to prepare and remove after electrophoresis.

Number of gels per kit:

0.75 mm mini-gel	1.0 mm mini-gel	1.5 mm mini-gel
62 gels	50 gels	33 gels

Limitations

- For Research Use Only. Not Intended for Diagnostic or Therapeutic Use.

Precautions

- This product contains a small amount of acrylamide which is corrosive.
- Always wear appropriate protective clothing and follow safe laboratory procedures.

Materials Provided & Storage

Store the kit at 2-8°C for up to 12 months**. Protect from light.**

Component	Size
Stacking Gel Solution A	50 mL
Stacking Gel Solution B- Red	50 mL
Resolving Gel Solution A	125 mL
Resolving Gel Solution B	125 mL
Ammonium Persulfate (APS)	0.5 g

Preparation of Reagents

10% APS solution: Add 5 mL deionized water to ammonium persulfate (APS) tube. Prepare and store aliquots for future use.

Protocol

Note: Due to the rapid polymerization rate of the solutions, prepare the stacking gel solution immediately after the resolving gel solution as indicated in the order of the steps below. Excessive delays in preparing and casting the stacking gel will inhibit complete polymerization of the resolving gel. This will impact the interface between the stacking and resolving gels, causing issues with the protein migration during electrophoresis.

1. Uniformly mix resolving gel solutions A and B at a 1:1 ratio in a 15 mL or 50 mL centrifuge tube.

Reagent	0.75 mm Gel	1.0 mm Gel	1.50 mm Gel
Resolving Gel Solution A	2.0 mL	2.5 mL	3.8 mL
Resolving Gel Solution B	2.0 mL	2.5 mL	3.8 mL

2. Uniformly mix stacking gel solutions A and B at a 1:1 ratio in a 15 mL or 50 mL centrifuge tube.

Reagent	0.75 mm Gel	1.0 mm Gel	1.50 mm Gel
Stacking Gel Solution A	0.8 mL	1.0 mL	1.5 mL
Stacking Gel Solution B	0.8 mL	1.0 mL	1.5 mL

3. Add the 10% APS solution to the **resolving gel solution prepared in step 1** (50 uL of 10% APS solution per 5 mL resolving gel solution). Pour into the glass plates to a level 1.5 cm from the top of the front glass plate or 0.5 cm from the teeth of the comb.
4. Add the 10% APS solution to the **stacking gel solution prepared in step 2** (20 uL of 10% APS solution per 2 mL stacking gel solution). Directly pour on the resolving gel solution without waiting for the solidification of the resolving gel solution.
5. Insert the comb into the gel and wait for 15-20 minutes for gel polymerization.
   Note: Gels may be stored for several weeks at 2-8°C in sealed bags with electrophoresis buffer.
6. After gel polymerization, remove the comb and wash the wells with deionized water.
7. Rapid electrophoresis may be carried out using a conventional electrophoresis buffer. The maximum recommended voltage is 300V, allowing electrophoresis to be completed in about 25 minutes. The current should not exceed 140 mA. To avoid excessive heat generation, the voltage may be reduced if the current is too high.
   Note: Electrophoresis with this product may be carried out at lower voltages, *e.g.*, 150V.
8. It is recommended to use Exreprotein™ Prestained Molecular Weight Markers.