

# Novex<sup>®</sup> Zymogram Gels

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Instructions are provided below for electrophoresis of Novex<sup>®</sup> Zymogram Gels using the XCell *SureLock*<sup>®</sup> Mini-Cell. For details, refer to the *Novex<sup>®</sup> Technical Guide* available at [www.lifetechnologies.com/manuals](http://www.lifetechnologies.com/manuals) or contact Technical Support.

## Prepare Samples

### Reagent

### Sample

Sample

x  $\mu$ L

Tris-Glycine SDS Sample Buffer (2X)

5  $\mu$ L

Deionized Water

to 5  $\mu$ L

Total Volume

10  $\mu$ L

**Do not heat or reduce samples for Zymogram gels.**

## Prepare 1X Buffer

Add 100 mL 10X Tris-Glycine SDS Running Buffer to 900 mL deionized water to prepare 1X Tris-Glycine SDS Running Buffer.

## Load Sample

Load the appropriate concentration of your protein sample on the gel.

## Load Buffer

Fill the Upper Buffer Chamber with 200 mL and the Lower Buffer Chamber with 600 mL of 1X Tris-Glycine SDS Running Buffer.

## Run Conditions

Voltage: 125 V constant

Run Time: 90 minutes (dependent on gel percentage)

Expected Current: 30–40 mA/gel (start); 8–12 mA/gel (end)

# Novex® Zymogram Gels

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- Develop Gel**
1. Dilute Novex® Zymogram Renaturing Buffer (10X) and Novex® Zymogram Developing Buffer (10X) 1:9 with deionized water. You need 100 mL of each buffer per 1–2 mini-gels.
  2. After electrophoresis, remove the gel and incubate the gel in 1X Zymogram Renaturing Buffer for 30 minutes at room temperature with gentle agitation.
  3. Decant the Zymogram Renaturing Buffer and add 1X Zymogram Developing Buffer to the gel.
  4. Equilibrate the gel for 30 minutes at room temperature with gentle agitation.
  5. Decant the buffer and add fresh 1X Zymogram Developing Buffer to the gel.
  6. Incubate the gel at 37°C for at least 4 hours or overnight for maximum sensitivity. The optimal result is determined empirically by varying the sample load or incubation time.
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**Stain Gel** Zymogram (Blue Casein) 4–16% gels do not require staining. For non-pre-stained Zymogram gels, stain the gels with Colloidal Blue Staining Kit or the SimplyBlue™ Safestain. Areas of protease activity appear as clear bands against a dark background.

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<b>Sensitivity Level</b>	10% Zymogram (Gelatin) Gel:	$10^{-6}$ units of collagenase
	12% Zymogram (Casein) Gel:	$7 \times 10^{-4}$ units of trypsin
	4–16% Zymogram (Blue Casein) Gel:	$1.5 \times 10^{-3}$ units of trypsin

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