

# T-Pro Gradient Gel Solution kit (5-15%)



Store at RT

(JB02-B515M) A 500ml + B 100ml

**This product is for laboratory research ONLY and not for diagnostic use.**

<b>Product Overview</b>	T-Pro Gradient Gel Solution is "ready-to-run" SDS polyacrylamide solutions polymerize into an advanced molecular sieve for the electrophoretic separation of proteins. Because of the advanced buffer chemistry used in the gel matrix solution, T-Pro Gradient Gels allow a single separating gel. No stacking gel is required, as the T-Pro Gradient Gel Solution proprietary formulation inherently stacks the protein samples during the normal electrophoresis run. Band resolution is unparalleled over a molecular range of 10 to 250 KDa. The new hybrid formulation of T-Pro Gradient Gel Solution gives these gels an increased gel strength, which allows for easier handling. T-Pro Gradient Gel Solution will work with all types of universal electrophoresis apparatus. Our gel mixtures are formulated for optimal performance in mass spectrometry-based proteomics experiments.
<b>Features</b>	<ul style="list-style-type: none"><li>● High gel strength - allows easier handling.</li><li>● Ready to use in less than 10-15 minutes - just add TEMED and APS to polymerize the gel.</li><li>● No stacking gel required - permits longer gel separations</li><li>● High resolution gels for protein separation across a broad molecular weight range.</li></ul>
<b>Research Applications</b>	SDS-PAGE separation of proteins Biomarker separation Recombinant protein purity analysis
<b>Protocol</b>	For 10mL of T-Pro Gradient Gel Solution A 1) Add 10 $\mu$ L TEMED and gently mix solution for even distribution. 2) Add 100 $\mu$ L 10% APS and gently mix solution for even distribution. 3) Pour the gel solution into gel cartridge to the top of the short plate. 4) Add the comb. 5) Allow to sit for approximately 10-15 minutes for polymerization. *For larger or smaller volumes adjust the amount of T-Pro Gradient Gel Solution, TEMED, and APS added
<b>Storage</b>	T-Pro Gradient Gel Solution is stable for RT

\*Gradient Gel Solution B = Stacking Solution (you can choose to use it or not, optional use: improves image sharpness and overall quality.)

## Casting preparation volumes

### 8\*10 cm

	0.75 mm (n = gels)	1.0 mm (n = gels)	1.5 mm (n = gels)
Total volume	6 ml x n	8 ml x n	11 ml x n
TEMED	6 µl x n	8 µl x n	11 µl x n
10 % APS	60 µl x n	80 µl x n	110 µl x n

### 10\*10 cm

	0.75 mm (n = gels)	1.0 mm (n = gels)	1.5 mm (n = gels)
Total volume	8 ml x n	11 ml x n	13 ml x n
TEMED	8 µl x n	11 µl x n	13 µl x n
10 % APS	80 µl x n	110 µl x n	130 µl x n

### TGS Running buffer conditions for T-Pro Gradient Gel Solution

	<b>50V</b> Low voltage	<b>100V</b> Standard
<b>Run time</b>	5-15 min	60-90 min

### MOPS/SDS Running buffer conditions for T-Pro Gradient Gel Solution

	<b>75V</b> Low voltage	<b>150V</b> Standard
<b>Run time</b>	3-10 min	25-35 min

- \*When running 1-2 gels in the electrophoresis system, do not leave the companion module in the tank.
- \*Do not run different gel types (chemistry) or percentages in the same tank at the same time.
- \*Do not use acid or base to adjust pH of running buffer (MOPS or TGS).

If you want to improve resolution or obtain sharper bands for small-molecule proteins:

Suggestions:

For the resolving gel, reduce the amount of APS and TEMED by half (or use only 1/3 of the normal amount), allowing the gel to polymerize more slowly; wait for 30 minutes to over 1 hour. Run the stacking gel at 50 V (once all samples have entered the resolving gel, switch to 100 V), and run the resolving gel at 100 V.