A gene or open reading frame is inserted into a restriction site of the vector polylinker, in the same translational reading frame as the malE gene (encoding maltose-binding protein). The fusion protein thus produced can be purified by amylose affinity chromatography. The sequence coding for the four amino acids Ile-Glu-Gly-Arg is present just upstream of the XmnI site. This allows the protein of interest to be cleaved from maltose-binding protein with the specific protease Factor Xa. Fragments inserted in the XmnI site (cleaves GAAGG↓ATTTC) will produce a fusion protein that, after Factor Xa cleavage, contains no vector-derived residues on the protein of interest.

The sequences of the pMAL vectors, as well as other pMAL information are available at www.neb.com or by e-mail from info@neb.com. A detailed map of the closely related vector pMAL-p5X can be found in the appendix of the New England Biolabs Catalog.

**Usage Notes:** NEB 10-beta Competent *E. coli* (High Efficiency) (NEB #C3019) is recommended for propagation and subcloning. NEB Express Competent *E. coli* (High Efficiency) (NEB #C2523) is recommended for expression using this vector.

### pMAL-c5X Polylinker:

The sequences of the pMAL vectors, as well as other pMAL information are available at www.neb.com or by e-mail from info@neb.com. A detailed map of the closely related vector pMAL-p5X can be found in the appendix of the New England Biolabs Catalog.

**Usage Notes:** NEB 10-beta Competent *E. coli* (High Efficiency) (NEB #C3019) is recommended for propagation and subcloning. NEB Express Competent *E. coli* (High Efficiency) (NEB #C2523) is recommended for expression using this vector.

### pMAL-c5X Polylinker:

<table>
<thead>
<tr>
<th>SacII</th>
<th>XmnI</th>
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<tr>
<td>5’ maIE...TCG AGC TCG (AAC)</td>
<td>AAT AAC AAT (AAC)</td>
</tr>
<tr>
<td>CAT ATG TCC ATG GCC GCC GCC GAT ATC GTC GAC GGA TCC GAA ATA AAT A...</td>
<td></td>
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</table>

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**References:**


**Notice to Buyer/User:** The buyer/user has a non-exclusive license to use the vector for Research Purposes Only. Commercial use of this vector requires a license from New England Biolabs, Inc.

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