

# PRODUCT INFORMATION



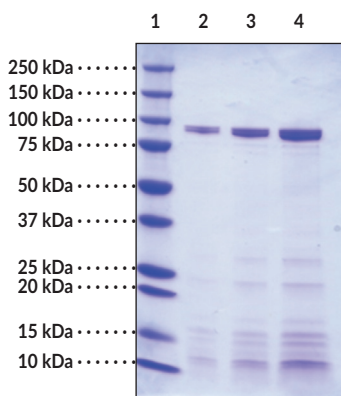
## Lipoxygenase from Glycine max (soybean) - Purified Item No. 60700

### Overview and Properties

**Synonyms:** 13-S-Lipoxygenase-1, 15-Lipoxygenase, Lipoxygenase Lx3  
**Source:** Soybeans (Provar)  
**Uniprot Nos.:** B3TDK6, P08170  
**Molecular Weight:** 94 and 97 kDa  
**Storage:** -80°C (as supplied)  
**Stability:** ≥1 year  
**Purity:** ≥70% (estimated by SDS-PAGE)  
**Supplied in:** *batch specific*  
**Protein Concentration:** *batch specific* mg/ml  
**Activity:** *batch specific* U/ml  
**Specific Activity:** *batch specific* U/mg  
**Unit Definition:** One unit of enzyme causes an increase of 0.001 A at 234 nm when incubated with 7 μM linoleate at 25°C in 0.1 M borate buffer, pH 9.0, in a total volume of 1.0 ml. Lipoxygenase activity quantified spectrophotometrically.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Image



Lane 1: MW Markers  
Lane 2: Lipoxygenase from Glycine max (soybean) (1 μg)  
Lane 3: Lipoxygenase from Glycine max (soybean) (2 μg)  
Lane 4: Lipoxygenase from Glycine max (soybean) (4 μg)

Representative gel image shown; actual purity may vary between each batch.

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY  
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## Description

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This product contains primarily 13-S-lipoxygenase-1 and lipoxygenase Lx3 which are non-heme, non-sulfur ferropoteins, that are 94 and 97 kDa, respectively. 13-S-Lipoxygenase is referred to as a type-1 enzyme and exhibits maximum catalytic activity at pH 9.0.<sup>1,2</sup> The substrate specificity of this product is linoleate>arachidonate>eicosapentaenoate. It has been suggested that this enzyme is involved in seed maturation and germination.<sup>1,2</sup>

## References

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1. Funk, M.O., Carroll, R.T., Thompson, J.F., *et al.* The lipoxygenases in developing soybean seeds, their characterization and synthesis *in vitro*. *Plant Physiol.* **82**, 1139-1144 (1986).
2. Draheim, J.E., Carroll, R.T., McNemar, T.B., *et al.* Lipoxygenase isoenzymes: A spectroscopic and structural characterization of soybean seed enzymes. *Arch. Biochem. Biophys.* **269**, 208-218 (1989).

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