

# Recombinant Human DNA ligase 1(LIG1)

Catalog No: #AP70504

Package Size: #AP70504-1 20ug #AP70504-2 100ug #AP70504-3 1mg

## Description

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| Product Name          | Recombinant Human DNA ligase 1(LIG1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Host Species          | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Purification          | Greater than 90% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Immunogen Description | Expression Region:1-919aaSequence Info:Full Length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Other Names           | DNA ligase IPolydeoxyribonucleotide synthase [ATP] 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Accession No.         | P18858                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Calculated MW         | 128.7 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Tag Info              | N-terminal GST-tagged                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Target Sequence       | <p>MQRSIMSFFHPKKEGKAKKPEKEASNSSRETEPPPKAALKEWNGVVSSEDSPVKRPGRKAARVLGSEGE</p> <p>DEALSPAKGQKPALDCSQVSPRPATSPENNASLSDTSPMDSSPSGIPKRRRTARKQLPKRTIQEVLEEQSEDE</p> <p>DREAKRKKEEEEEETPKESLTAEVATEKEGEDGDQPTTPPKPLKTSKAETPTESVSEPEVATKQELQEEEEQ</p> <p>TKPPRRAPKTLSSFFTTPRPAVKKEVKEEPPGAPGKEGAAEGPLDSPGYNPAKNNYHPVEDACWKPQGQKVP</p> <p>YLAVARTFEKIEEVSARLRMVETLSNLLRSVVALSPPDLLPVLYLSLNLHGPPQQGLELGVGDGVLLKAVAQAT</p> <p>GRQLESVRAEAAEKGDVGLVAENSRSTQRLMLPPPPLTASGVFSKFRDIARLTGSASTAKKIDIIKGLFVACRH</p> <p>SEARFIARSLSGRLRLGLAEQSVLAALSQAVSLTPPGQEFPPAMVDAGKGKTAEARKTWLEEQGMILKQTFCE</p> <p>VPDLDRIPVLLEHGLERLPEHCKLSPGIPLKPMLAHPTRGISEVLKRFEAAFTCEYKYDQGRAQIHALEGGEV</p> <p>KIFSRNQEDNTGKYPDIISRIPKIKLPSVTSFILDTEAVAWDREKKIQPFQVLTRKRKEVDASEIQVQVCLYAF</p> <p>DLIYLNAGESLVREPLSRRRQLLRENFVETEGEFVFATSLDTKDIEQIAEFLEQSVKDSCEGLMVKTLDDVATYEI</p> <p>AKRSHNWLKLLKDYLDGVGDTLDLVVIGAYLGRGKRAGRYGGFLLASYDEDESEELQAICKLGTGFSDEEELEE</p> <p>HQSLKALVLPSPRPYVRIDGAVIPDHWLDPSAVWEVKCADLSLPIYPAARGLVDSKGISLRFPRFIRVREDK</p> <p>QPEQATTSAAQVACLYRKQSQIQNQGGEDSGSDPEDTY</p> |
| Formulation           | Tris-based buffer50% glycerol                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Storage               | <p>The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.</p> <p>Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Background

DNA ligase that seals nicks in double-stranded DNA during DNA replication, DNA recombination and DNA repair.

## References

The DNA sequence and biology of human chromosome 19.Grimwood J., Gordon L.A., Olsen A.S., Terry A., Schmutz J., Lamerdin J.E., Hellsten U., Goodstein D., Couronne O., Tran-Gyamfi M., Aerts A., Altherr M., Ashworth L., Bajorek E., Black S., Branscomb E., Caenepeel S., Carrano A.V. , Caoile C., Chan Y.M., Christensen M., Cleland C.A., Copeland A., Dalin E., Dehal P., Denys M., Detter J.C., Escobar J., Flowers D., Fotopulos D., Garcia C., Georgescu A.M., Glavina T., Gomez M., Gonzales E., Groza M., Hammon N., Hawkins T., Haydu L., Ho I., Huang W., Israni S., Jett J.,

Kadner K., Kimball H., Kobayashi A., Larionov V., Leem S.-H., Lopez F., Lou Y., Lowry S., Malfatti S., Martinez D., McCready P.M., Medina C., Morgan J., Nelson K., Nolan M., Ovcharenko I., Pitluck S., Pollard M., Popkie A.P., Predki P., Quan G., Ramirez L., Rash S., Retterer J., Rodriguez A., Rogers S., Salamov A., Salazar A., She X., Smith D., Slezak T., Solovyev V., Thayer N., Tice H., Tsai M., Ustaszewska A., Vo N., Wagner M., Wheeler J., Wu K., Xie G., Yang J., Dubchak I., Furey T.S., DeJong P., Dickson M., Gordon D., Eichler E.E., Pennacchio L.A., Richardson P., Stubbs L., Rokhsar D.S., Myers R.M., Rubin E.M., Lucas S.M. Nature 428:529-535(2004) Research Topic: Cell Cycle

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Note: This product is for in vitro research use only and is not intended for use in humans or animals.