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# A novel enzyme blend for efficient tissue dissociation and primary cells isolation

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Tissue dissociation/primary cell isolation and cell harvesting are principal applications for enzymes in tissue culture research and cell biology studies. The goal of a cell isolation procedure is to maximize the yield of functionally viable dissociated cells. Among the parameters which affect the outcome of any particular dissociating procedure there are enzyme(s) used and related impurities presents in crude enzyme preparation. ABIEL srl recently produced the recombinant collagenase class I (Col G) and II (Col H) from Clostridium histolyticum (PCT WO 2011/073925 A9). The enzymes were produced in Escherichia coli and purified by affinity chromatography. The method of production adopted allows absolute control of the final composition of these enzymes, as well as their stability, purity, activity, absence of toxicity and higher reproducibility of batches. The two collagenases produced separately have been used in conjunction according to precise proportions to dissociate calvaria, liver, pancreas, retina of the BALB/c mouse; and bovine hoof. The analyses carried out on all isolated cell populations suggest that the cells maintain the structural and functional integrity of specific tissues/organs originating. Recombinant Col G and Col H enzymes produced by ABIEL are promising in the context of the tissue/cells dissociation, with the aim to make innovation in the fields of tissue engineering and transplantation medicine.

## References

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Keywords

Cell isolation; tissue dissociation; collagenase.