Supplementary figure legends

Figure S1 Flow diagram of the isolation procedure for TLXI from wheat whole meal

TLXI was purified from a protein fraction, isolated from a wheat whole meal extract by CEC at pH 4.5. From this fraction, TAXI is first removed by *B. subtilis* xylanase AC (AC-BS). The resulting run-through fraction of this column was then applied to the *A. niger* xylanase column (AC-AN) to capture XIP and TLXI. By eluting this column in different steps with increasing pH, these two proteins were separated.

Figure S2 Schematic overview of *tlxi* sequence determination

Schematic overview of *tlxi* sequence data and relative positions of primers used for characterization and cloning. The details are explained in the manuscript. Flanking regions of EST BE427320 showed limited identity with the *tlxi* gene and are in dotted line.

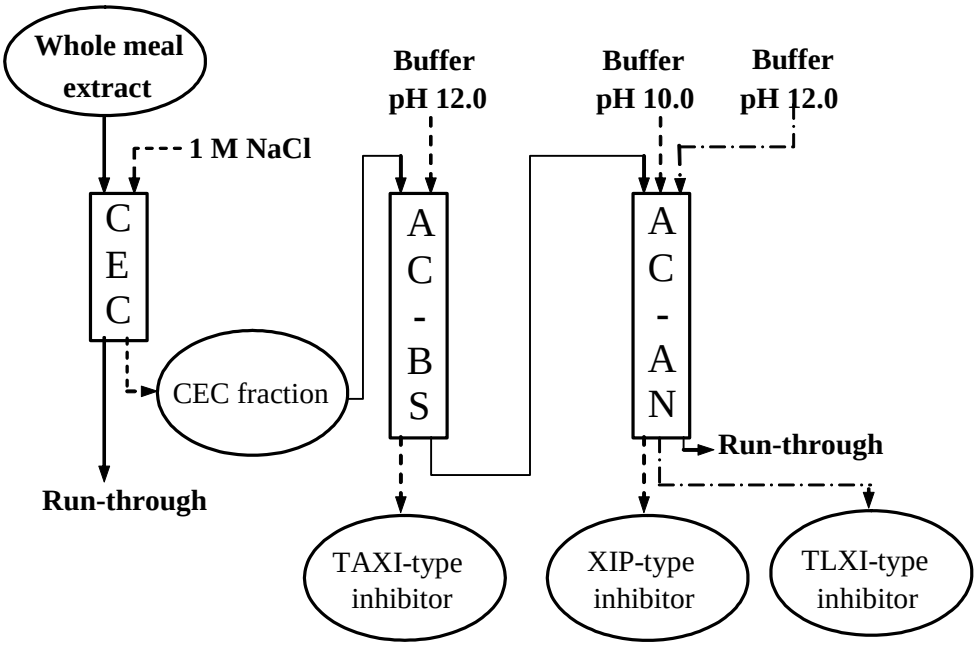
Figure S3 SDS-PAGE profiles of the *P. pastoris* culture medium and rTLXI

TLXI was cloned and heterologously expressed in *P. pastoris*. The rTLXI protein (lane 3) was purified from the culture medium (lane 2) by CEC using a SP-Sepharose Fast Flow column at pH 5.0. The sizes of the molecular mass markers (lane 1) are indicated on the left side. The gel was silver stained.

Figure S4 Western blot analysis with antibodies against native TLXI

Western blot analysis of TLXI (lane 1), rTLXI (lane 2), CEC fraction (lane 3) and commercial thaumatin (lane 4). Immunoprobing was performed with polyclonal antibodies raised against native TLXI from wheat as primary antibodies and goat anti-rabbit IgG conjugated to horseradish peroxidase as secondary antibodies.

Figure S1


Whole meal extract
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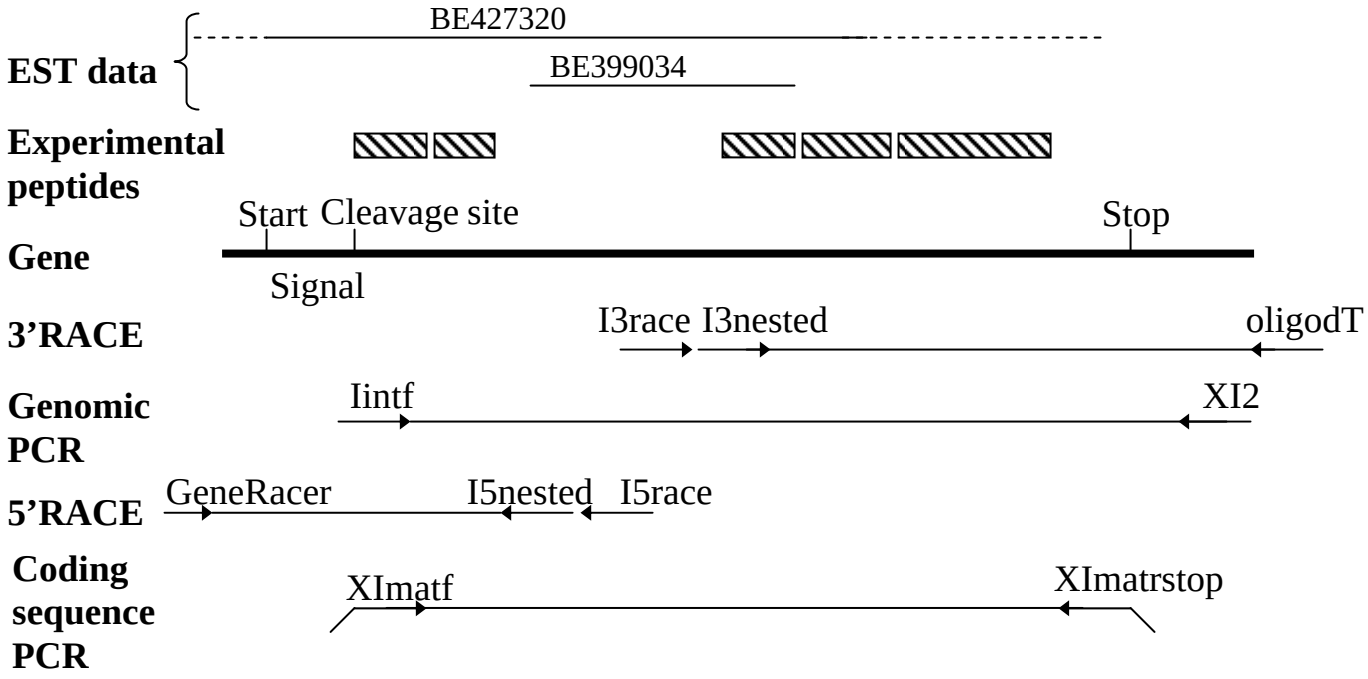
CEC
CEC fraction
Run-through
Buffer pH 12.0
AC-BS
Buffer pH 10.0
Buffer pH 12.0
AC-AN
Run-through
TAXI-type inhibitor
XIP-type inhibitor
TLXI-type inhibitor

Figure S2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BE399034
Experimental peptides
Gene
Start
Cleavage site
Stop
Signal
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I3race
I3nested
oligodT
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Iintf
XI2
5'RACE
GeneRacer
I5nested
I5race
Coding sequence PCR
XImatf
XImatrstop

Figure S3

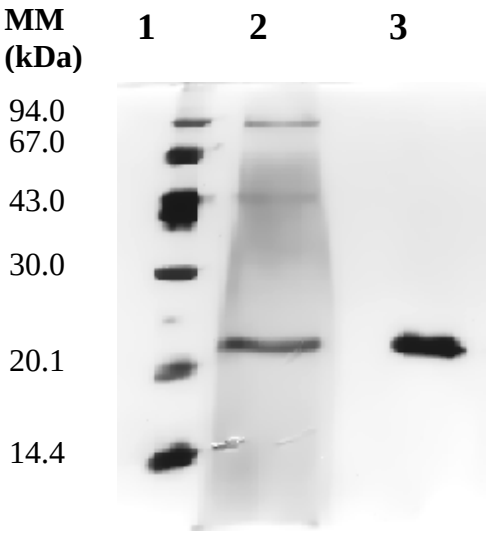

Figure S4