





# ConT<sub>E</sub>Xt

**title** : ConT<sub>E</sub>Xt User Module  
**subtitle** : Macros for chromatograms  
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```

2 \startmodule[chromato]
3 \writestatus{loading}{Macros for chromatograms}

This parameter is needed because \setupcaptions[align=hanging] does not work (see also
http://context.literatesolutions.com/collector/82).

4 \setupmodule[captionhanging=off]
5 \unprotect
6 \processaction[\currentmoduleparameter{captionhanging}]
    [
        on=>\def\Caption@Hanging{\setupalign[hanging]},
        \v!unknown=>\def\Caption@Hanging{},
        \v!default=>\def\Caption@Hanging{}
    ]

```

Some internal dimensions:

```

7 \doifundefined{Width}{\newdimen\Width}
  \doifundefined{Height}{\newdimen\Height}

```

\startChro.. Starting a chromatogram.

```

8 \def\startChromato{\bgroup\dosingempty\dostartChromato}
\def\dostartChromato[#1]#2#3{\getparameters[CHROM][dim=0.6,#1]
  \def\myChromFig{\doifdefinedelse{CHROMSdim}{%
    \externalfigure[#2][height=\CHROMSdim\textheight]}{%
    \externalfigure[#2][width=\CHROMdim\makeupwidth]}}%
  \setbox\scratchbox\hbox{\myChromFig}%
  \Width=\wd\scratchbox \Height=\ht\scratchbox \setuppositioning[unit=pt]
  \gdef\SavedCaption{#3}\doifundefined{CHROMSdim}{\placefigure[] [fig:#2]{%
    \Caption@Hanging#3}}%
  \bgroup\startpositioning\position(0,0){\myChromFig}}

```

\stopChrom.. End of chromatogram.

```

9 \def\stopChromato{\stoppositioning\egroup\egroup{\doifdefined{CHROMSdim}{%
  \SavedCaption}}}

```

\startChro.. Begin set of of chromatograms.

```

10 \def\startChromatos{\dosingempty\dostartChromatos}
\def\dostartChromatos[#1]#2#3{\placefigure[] [fig:#2]{%
  \Caption@Hanging#3}\bgroup
  \getparameters[CHROMS][dim=0.3,#1]
  \doifdefined{CHROMSdist}{\setupcombinations[distance=\CHROMSdist em]}%
  \startcombination[2*1]}

```

\stopChrom.. End of chromatograms.

```

11 \def\stopChromatos{\stopcombination\egroup}

```

Internal macro: position left or right:

## Macros for chromatograms

```

12 \define[3]\LRposition{\edef\YPos{\withoutpt{\the\dimexpr(\withoutpt{
    \the\dimexpr(#1pt/100)}\Height - 0.1\baselineskip)}}}%
    \position(#2,\YPos){\vbox to 2pt{\vss{\hbox to 0pt{#3}\vss}}}}

\Lbrace Place a brace at the left.

13 \define[4]\Lbrace{\LRposition{#1}0{\hss\rotate[rotation=90]{%
    $\overbrace{\hskip#2\Height}^{\%
    \displaystyle\text{\rotate[rotation=270]{#4}}}$}\hskip#3em}}

\Rbrace Place a brace at the right.

14 \define[4]\Rbrace{\LRposition{#1}{\withoutpt{\the\Width}}{\hskip#3em
    \rotate[rotation=270]{$\overbrace{\hskip#2\Height}^{\%
    \displaystyle\text{\rotate[rotation=90]{#4}}}$}\hss}}

\Larrow Place a flesh at the left.

15 \define[2]\Larrow{\LRposition{#1}0{\hss{\tx#2} $\rightarrow$}}

\Rarrow Place a flesh at the right.

16 \define[2]\Rarrow{\LRposition{#1}{\withoutpt{\the\Width}}{${\leftarrow}$ \tx#2}}

\Above Place something above the chromatogram.
\Abrace
17 \define[3]\Oposition{\edef\XPos{\withoutpt{\the\dimexpr(\withoutpt{
    \the\dimexpr(#1pt/100)}\Width)}}}%
    \position(\XPos,-\withoutpt{\the\dimexpr(#2\baselineskip)}{\%
    \hbox to 0pt{\hss#3\hss}}}%
    \define[2]\Above{\Oposition{#1}{0.8}{\tx#2}}
    \define[3]\Abrace{\Oposition{#1}{2.5}{%
    $\overbrace{\hskip#2\Width}^{\displaystyle\text{#3}}$}}

18 \protect
19 \stopmodule

20 \doifnotmode{demo}{\endinput}

Usage example:

21 \usemodule[chromato]
    \enableregime[iii]
    \mainlanguage[de]
    \starttext
    \startChromato{ecolizeit}{Expression der rekombinanten Fucosyltransferase-V in
        {\em E.-coli}.}
        \Above{5}{BRS}\Above{15}{1h}\Above{26}{2h}\Above{38}{3h}\Above{50}{4h}
        \Above{61}{1h}\Above{72}{2h}\Above{83}{3h}\Above{94}{4h}
        \Larrow{12}{97\,kDa}\Larrow{20}{66\,kDa}
        \Larrow{32}{45\,kDa}\Larrow{52}{31\,kDa}
        \Lbrace{39}{0.75}{4}{A}
        \Lbrace{90}{0.16}{4}{B}
        \Abrace{32}{0.42}{löslich}
        \Abrace{77}{0.42}{unlöslich}
        \Rarrow{29}{FucT-V}\Rarrow{87}{FucT~V}

```

```

\stopChromato
\startChromatos[dim=0.17,dist=2]{saeuger}{Expression von rekombinanter
Fucosyltransferase-V in unterschiedlichen Säugerzelllinien.}
\startChromato{saeuger}{A}
\Above{26}{CHO}\Above{74}{HEK}
\Larrow{4}{96\,kDa}\Larrow{37}{66\,kDa}\Larrow{81}{45\,kDa}
\stopChromato
\startChromato{saeugerred}{B}
\Above{26}{CHO}\Above{74}{HEK}
\Rarrow{81}{FucT~V}
\stopChromato
\stopChromatos
\stoptext

```

