

Table 1 (Supplement). Alignment of cleavage sites (P₄P₃P₂P₁ | P₁'P₂'P₃'P₄') from fourteen BMP1 substrates. Using the DSPP cleavage site as a reference, homologies between DSPP and each are highlighted in green. The D residue at the P₁' position is conserved in 14 substrates.

BMP1 substrates

Protein	P ₄	P ₃	P ₂	P ₁	P ₁ '	P ₂ '	P ₃ '	P ₄ '
DSPP(7 species)	S	M	Q	G/RD	D	P	N/K	
Mouse/rat/bovine/human DMP1	G	M	Q	S	D	D	P	G/E
Human prollysyl oxidase	R	M	V	G	D	D	P	Y
Human chordin(C-terminal site)	P	M	Q	A	D	G	P	R
Human probiglycan	F	M	M	H	D	E	E	A
Human prodecorin	P	M	L	E	D	E	A	S
Mouse laminin 5Y2	C	Y	S	G	D	E	N	P
Human chordin(N-terminal site)	R	S	Y	S	D	R	G	E
Pro α 1(III)	P	Y	Y	G	D	E	P	H
Pro α 1(I)	Y	Y	R	A	D	D	A	N
Pro α 2(I)	F	Y	R	A	D	Q	P	R
Pro α 1(II)	Y	M	R	A	D	Q	A	A
Pro α 2(V)	E	F	T	E	D	Q	A	A
Pro α 1(VII)	S	Y	A	A	D	T	A	G

Table 2 (Supplement). Alignment of cleavage sites (P₄P₃P₂P₁ | P₁'P₂'P₃'P₄') between DSPP and prollysyl oxidase. Using the DSPP cleavage site as a reference, homologies between DSPP and prollysyl oxidase are highlighted in green. Amino acid substitutions into the P₂ position of DSP-PP blocked DSP-PP cleavage.

Proposed Consensus cleavage site between DSPP and prollysyl oxidase

	P ₄	P ₃	P ₂	P ₁	P ₁ '	P ₂ '	P ₃ '	P ₄ '	
DSPP	S	M	Q	G/RD	D	P	N/K		
hProllysyl oxidase	R	M	V	G	D	D	P	Y	
consensus	X	M	X	G	D	D	P	Y	Cleavage
			Q						normal
			K						No
			E						No (von Marschall et al 2010)