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(54) **ANTI-VEGF ANTIBODIES**  
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(\* ) Notice: Subject to any disclaimer, the term of this  
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(57) **ABSTRACT**

Humanized and variant anti-VEGF antibodies and various  
uses therefor are disclosed. The anti-VEGF antibodies have  
strong binding affinities for VEGF; inhibit VEGF-induced  
proliferation of endothelial cells in vitro; and inhibit tumor  
growth in vivo.

**22 Claims, 16 Drawing Sheets**

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	1	10	20	30	40	
A4.6.1	EIQLVQSGPELKQPGETVRI <u>SCKASGYTFTNYGMNWVKQA</u>					
	*	*	** *	*** *	*	*
F(ab)-12	EVQLV <u>ESGGGLVQP</u> GGSLRLS <u>CAASGYTFTNYGMNWVRQA</u>					
				*	** *	*
humIII	EVQLV <u>ESGGGLVQP</u> GGSLRLS <u>CAASG</u> FTFSYAMSWVRQA					
		50	a	60	70	80
A4.6.1	PGKGLKWMGWINTYT <u>G</u> EPTYAADF <u>KRRFTFS</u> LETSASTAYL					
	*	*			*	*
F(ab)-12	PGKGL <u>EWV</u> GWINTYT <u>G</u> EPTYAADF <u>KRRFTFS</u> LDTSKSTAYL					
	**	****	***	*** *	*	** *
humIII	PGKGL <u>EWV</u> SVISG <u>D</u> GGSTYADSVKGRFTISRDN <u>SKNT</u> LYL					
		abc	90		110	
A4.6.1	QISNLKNDTATYFC <u>AKYPHYYGSSH</u> WYFDVWGAGTTVTVSS					(SEQ.ID NO:9)
	***	***	*	*	*	*
F(ab)-12	QMNSLRAEDTAVYY <u>CAKYPHYYGSSH</u> WYFDVWGQGTLVTVSS					(SEQ.ID NO:7)
			*		*	
humIII	QMNSLRAEDTAVYYCARG-----FDYWGQGTLVTVSS					(SEQ.ID NO:11)

**FIG. 1A**

	1	10	20	30	40	
A4.6.1	DIQMTQTT <u>S</u> SL <u>S</u> ASLGDRVII <u>SC</u> SASQD <u>IS</u> NYLNWYQQP					
	**		*	*	*	
F(ab)-12	DIQMTQSP <u>S</u> SL <u>S</u> ASVGD <u>RVTITC</u> SASQD <u>IS</u> NYLNWYQQP					
			*	*	*	
humKI	DIQMTQSP <u>S</u> SL <u>S</u> ASVGD <u>RVTITC</u> RASQ <u>S</u> ISNYLAWYQQP					
		50	60	70	80	
A4.6.1	DGTVKVLIY <u>F</u> T <u>SSL</u> HSGVPSR <u>F</u> SGSGSGTDYSLTISNLEP					
	****			**	**	
F(ab)-12	GKAPKVL <u>IY</u> <u>F</u> T <u>SSL</u> HSGVPSR <u>F</u> SGSGSGTDF <u>TL</u> ISSLQP					
	*	**	*			
humKI	GKAPKLLIYAASSLESGVPSR <u>F</u> SGSGSGTDF <u>TL</u> ISSLQP					
		90	100			
A4.6.1	EDIATYYC <u>Q</u> QY <u>S</u> TVPWTFGGG <u>T</u> KLEIKR					(SEQ.ID NO:10)
	*		*	*		
F(ab)-12	EDFATYYC <u>Q</u> QY <u>S</u> TVPWTFGGG <u>T</u> KVEIKR					(SEQ.ID NO:8)
		***				
humKI	EDFATYYC <u>Q</u> QYNSLPWTFGGG <u>T</u> KVEIKR					(SEQ.ID NO:12)

**FIG. 1B**

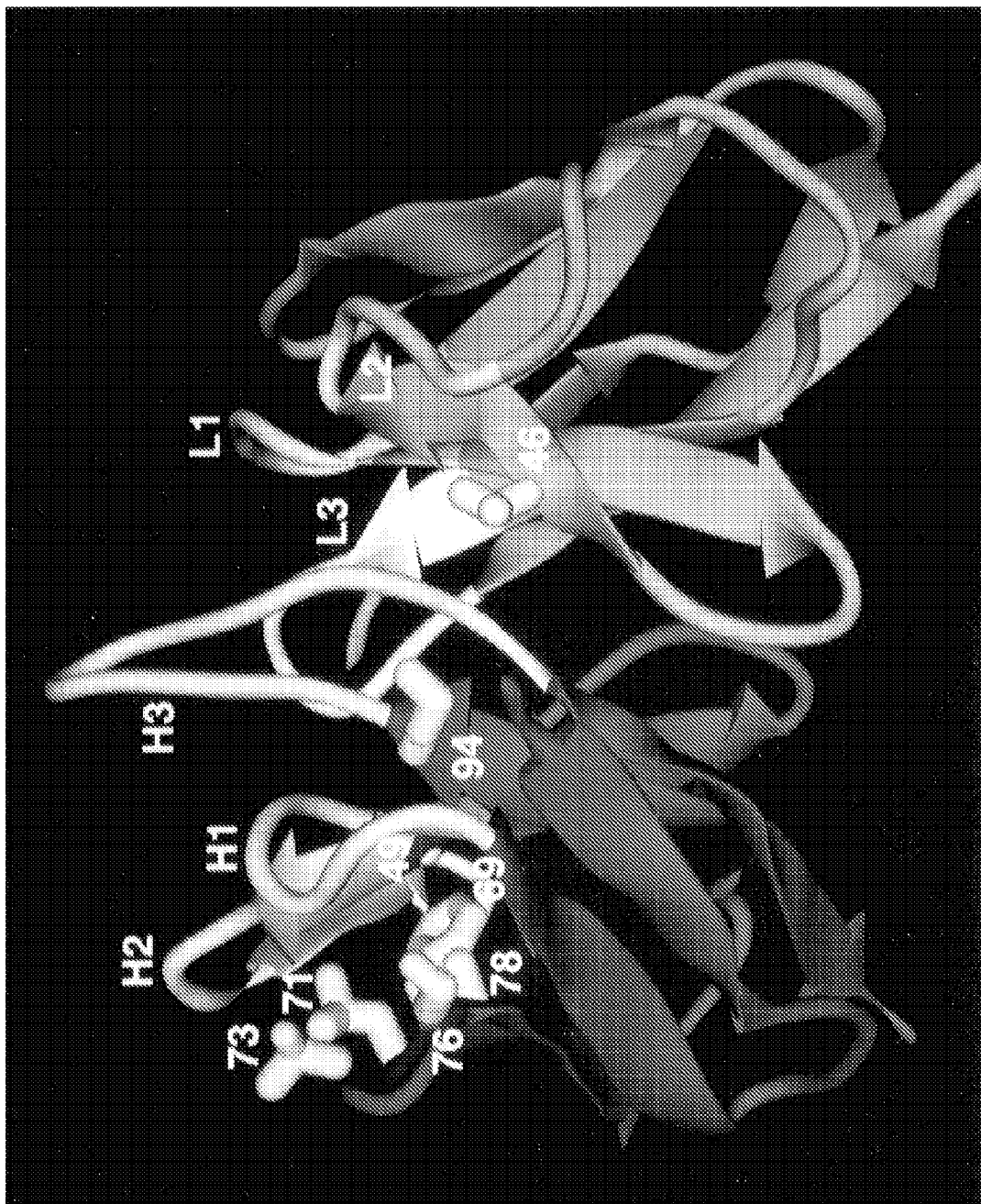


FIG. 2



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