

Supplementary Table S2. List of samples and accession numbers used in this study

| Gene | Sample ID | District | Veterinary Camp | Accession number |
|-------------|------------------|-----------------|------------------------|-------------------------|
| Tp2 | 4C1 | Chongwe | Chalimbana | LC645702 |
| | 5C2 | Chongwe | Chalimbana | LC645703 |
| | 6C3 | Chongwe | Chalimbana | LC645704 |
| | 7C4 | Chongwe | Chalimbana | LC645705 |
| | 8C5 | Chongwe | Chalimbana | LC645706 |
| | 11C6 | Chongwe | Chalimbana | LC645707 |
| | 12C7 | Chongwe | Chalimbana | LC645708 |
| | 13C8 | Chongwe | Chalimbana | LC645709 |
| | 19C10 | Chongwe | Chalimbana | LC645710 |
| | 20C11 | Chongwe | Chalimbana | LC645711 |
| | 21C12 | Chongwe | Chalimbana | LC645712 |
| | 22C13 | Chongwe | Chalimbana | LC645713 |
| | 23C14 | Chongwe | Chalimbana | LC645714 |
| | 24C15 | Chongwe | Chalimbana | LC645715 |
| | 28C16 | Chongwe | Chalimbana | LC645716 |
| | 29C17 | Chongwe | Chalimbana | LC645717 |
| | 31C18 | Chongwe | Chalimbana | LC645718 |
| | 32C19 | Chongwe | Chalimbana | LC645719 |
| | 33C20 | Chongwe | Chalimbana | LC645720 |
| | 35C21 | Chongwe | Chalimbana | LC645721 |
| | 36C22 | Chongwe | Chalimbana | LC645722 |
| | 38C23 | Chongwe | Chalimbana | LC645723 |
| | 40C24 | Chongwe | Chalimbana | LC645724 |
| | 41C25 | Chongwe | Chalimbana | LC645725 |
| | 42C26 | Chongwe | Chalimbana | LC645726 |
| | 45C27 | Chongwe | Chalimbana | LC645727 |
| | 48C28 | Chongwe | Chalimbana | LC645728 |
| | 50C29 | Chongwe | Chinkuli | LC645729 |
| | 51C30 | Chongwe | Chinkuli | LC645730 |
| | 52C31 | Chongwe | Chinkuli | LC645731 |
| | 54C32 | Chongwe | Chinkuli | LC645732 |
| | 55C33 | Chongwe | Chinkuli | LC645733 |
| | 56C34 | Chongwe | Chinkuli | LC645734 |
| | 57C35 | Chongwe | Chinkuli | LC645735 |
| | 58C36 | Chongwe | Chinkuli | LC645736 |
| | 59C37 | Chongwe | Lwimba | LC645737 |
| | 61C38 | Chongwe | Lwimba | LC645738 |
| | 62C39 | Chongwe | Lwimba | LC645739 |
| | 63C40 | Chongwe | Lwimba | LC645740 |
| | 64C41 | Chongwe | Lwimba | LC645741 |
| | 65C42 | Chongwe | Chinkuli | LC645742 |
| | 66C43 | Chongwe | Palabana | LC645743 |

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|--|--------|---------|-----------------|----------|
| | 68C44 | Chongwe | Lwimba | LC645744 |
| | 69C45 | Chongwe | Lwimba | LC645745 |
| | 70C46 | Chongwe | Lwimba | LC645746 |
| | 72C47 | Chongwe | Palabana | LC645747 |
| | 75C48 | Chongwe | Palabana | LC645748 |
| | 76C49 | Chongwe | Palabana | LC645749 |
| | 78C50 | Chongwe | Chongwe Central | LC645750 |
| | 80C51 | Chongwe | Chongwe Central | LC645751 |
| | 81C52 | Chongwe | Chongwe Central | LC645752 |
| | 86C54 | Chongwe | Chongwe Central | LC645753 |
| | 87C55 | Chongwe | Chongwe Central | LC645754 |
| | 88C56 | Chongwe | Chongwe Central | LC645755 |
| | 89C57 | Chongwe | Chongwe Central | LC645756 |
| | 90C58 | Chongwe | Chongwe Central | LC645757 |
| | 91C59 | Chongwe | Chongwe Central | LC645758 |
| | 92C60 | Chongwe | Chongwe Central | LC645759 |
| | 93C61 | Chongwe | Chongwe Central | LC645760 |
| | 94C62 | Chongwe | Chongwe Central | LC645761 |
| | 95C63 | Chongwe | Chongwe Central | LC645762 |
| | 96C64 | Chongwe | Chongwe Central | LC645763 |
| | 97C65 | Chongwe | Chongwe Central | LC645764 |
| | 98C66 | Chongwe | Chongwe Central | LC645765 |
| | 99C67 | Chongwe | Chongwe Central | LC645766 |
| | 100C68 | Chongwe | Chinkuli | LC645767 |
| | 101C69 | Chongwe | Chinkuli | LC645768 |
| | 102C70 | Chongwe | Chinkuli | LC645769 |
| | 1X20 | Chongwe | Chalimbana | LC645770 |
| | 1X21 | Chongwe | Chalimbana | LC645771 |
| | 3X22 | Chongwe | Chalimbana | LC645772 |
| | 6X76 | Chongwe | Chalimbana | LC645773 |
| | 9X23 | Chongwe | Chalimbana | LC645774 |
| | 10X24 | Chongwe | Chalimbana | LC645775 |
| | 12X40 | Chongwe | Chalimbana | LC645776 |
| | 14X25 | Chongwe | Chalimbana | LC645777 |
| | 16X26 | Chongwe | Chalimbana | LC645778 |
| | 16X41 | Chongwe | Chalimbana | LC645779 |
| | 17X42 | Chongwe | Chalimbana | LC645780 |
| | 21X43 | Chongwe | Chalimbana | LC645781 |
| | 31X78 | Chongwe | Chalimbana | LC645782 |
| | 35X27 | Chongwe | Chalimbana | LC645783 |
| | 40X44 | Chongwe | Chalimbana | LC645784 |
| | 40X79 | Chongwe | Chalimbana | LC645785 |
| | 44X28 | Chongwe | Chalimbana | LC645786 |
| | 48X45 | Chongwe | Chalimbana | LC645787 |
| | 51X29 | Chongwe | Lwimba | LC645788 |

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|--|--------|----------|-----------------|----------|
| | 53X80 | Chongwe | Chinkuli | LC645789 |
| | 56X46 | Chongwe | Lwimba | LC645790 |
| | 58X30 | Chongwe | Chinkuli | LC645791 |
| | 62X31 | Chongwe | Lwimba | LC645792 |
| | 64X32 | Chongwe | Lwimba | LC645793 |
| | 65X33 | Chongwe | Chinkuli | LC645794 |
| | 68X34 | Chongwe | Lwimba | LC645795 |
| | 68X47 | Chongwe | Lwimba | LC645796 |
| | 70X35 | Chongwe | Lwimba | LC645797 |
| | 71X48 | Chongwe | Palabana | LC645798 |
| | 72X49 | Chongwe | Palabana | LC645799 |
| | 73X36 | Chongwe | Palabana | LC645800 |
| | 73X50 | Chongwe | Palabana | LC645801 |
| | 74X37 | Chongwe | Palabana | LC645802 |
| | 76X38 | Chongwe | Palabana | LC645803 |
| | 79X51 | Chongwe | Chongwe Central | LC645804 |
| | 80X52 | Chongwe | Chongwe Central | LC645805 |
| | 82X53 | Chongwe | Chongwe Central | LC645806 |
| | 83X54 | Chongwe | Chongwe Central | LC645807 |
| | 88X55 | Chongwe | Chongwe Central | LC645808 |
| | 90X56 | Chongwe | Chongwe Central | LC645809 |
| | 94X57 | Chongwe | Chongwe Central | LC645810 |
| | 95X39 | Chongwe | Chongwe Central | LC645811 |
| | 96X58 | Chongwe | Chongwe Central | LC645812 |
| | 97X59 | Chongwe | Chongwe Central | LC645813 |
| | 100X60 | Chongwe | Chinkuli | LC645814 |
| | 103X61 | Chongwe | Chinkuli | LC645815 |
| | 104X62 | Chongwe | Chinkuli | LC645816 |
| | 105X64 | Chongwe | Chinkuli | LC645817 |
| | 108X65 | Chongwe | Chinkuli | LC645818 |
| | 109X66 | Chongwe | Chinkuli | LC645819 |
| | 110X67 | Chongwe | Chinkuli | LC645820 |
| | 111X68 | Chongwe | Chinkuli | LC645821 |
| | 114X69 | Chongwe | Chinkuli | LC645822 |
| | 115X70 | Chongwe | Chinkuli | LC645823 |
| | 116X63 | Chongwe | Chinkuli | LC645824 |
| | 118X72 | Chongwe | Chinkuli | LC645825 |
| | 120X73 | Chongwe | Chinkuli | LC645826 |
| | 121X74 | Chongwe | Chinkuli | LC645827 |
| | 122X75 | Chongwe | Chinkuli | LC645828 |
| | 127X81 | Chongwe | Chinkuli | LC645829 |
| | 2BA55 | Chisamba | Muswishi | LC645830 |
| | 3BA56 | Chisamba | Muswishi | LC645831 |
| | 5BA57 | Chisamba | Muswishi | LC645832 |
| | 6BA58 | Chisamba | Muswishi | LC645833 |

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|-----|--------|----------|------------------|----------|
| | 9BA59 | Chisamba | Muswishi | LC645834 |
| | 13BA60 | Chisamba | Chisamba Central | LC645835 |
| | 15BA61 | Chisamba | Chisamba Central | LC645836 |
| | 16BA62 | Chisamba | Chisamba Central | LC645837 |
| | 20BA63 | Chisamba | Chisamba Central | LC645838 |
| | 22BA64 | Chisamba | Chisamba Central | LC645839 |
| | 24BA65 | Chisamba | Chisamba Central | LC645840 |
| | 25BA66 | Chisamba | Chisamba Central | LC645841 |
| | 26BA69 | Chisamba | Chisamba Central | LC645842 |
| | 27BA67 | Chisamba | Chisamba Central | LC645843 |
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| Tp1 | KL 11 | Katete | Katete | LC645844 |
| | 5X8 | Chongwe | Chalimbana | LC645845 |
| | 06X60 | Chongwe | Chalimbana | LC645846 |
| | 9X9 | Chongwe | Chalimbana | LC645847 |
| | 10X10 | Chongwe | Chalimbana | LC645848 |
| | 11C8 | Chongwe | Chalimbana | LC645849 |
| | 12C9 | Chongwe | Chalimbana | LC645850 |
| | 16X11 | Chongwe | Chalimbana | LC645851 |
| | 18X12 | Chongwe | Chalimbana | LC645852 |
| | 19C13 | Chongwe | Chalimbana | LC645853 |
| | 21C14 | Chongwe | Chalimbana | LC645854 |
| | 22C15 | Chongwe | Chalimbana | LC645855 |
| | 23C16 | Chongwe | Chalimbana | LC645856 |
| | 25X14 | Chongwe | Chalimbana | LC645857 |
| | 28C17 | Chongwe | Chalimbana | LC645858 |
| | 29X15 | Chongwe | Chalimbana | LC645859 |
| | 31C18 | Chongwe | Chalimbana | LC645860 |
| | 31X62 | Chongwe | Chalimbana | LC645861 |
| | 35X16 | Chongwe | Chalimbana | LC645862 |
| | 36C20 | Chongwe | Chalimbana | LC645863 |
| | 38C21 | Chongwe | Chalimbana | LC645864 |
| | 40X63 | Chongwe | Chalimbana | LC645865 |
| | 41C23 | Chongwe | Chalimbana | LC645866 |
| | 42C24 | Chongwe | Chalimbana | LC645867 |
| | 44X17 | Chongwe | Chalimbana | LC645868 |
| | 48C26 | Chongwe | Chalimbana | LC645869 |
| | 48X18 | Chongwe | Chalimbana | LC645870 |
| | 50C27 | Chongwe | Chalimbana | LC645871 |
| | 1C1 | Chongwe | Chalimbana | LC645872 |
| | 2C2 | Chongwe | Chalimbana | LC645873 |
| | 3C3 | Chongwe | Chalimbana | LC645874 |
| | 4C4c | Chongwe | Chalimbana | LC645875 |
| | 6C5 | Chongwe | Chalimbana | LC645876 |
| | 7C6 | Chongwe | Chalimbana | LC645877 |

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|--|--------|---------|------------|----------|
| | 8C7 | Chongwe | Chalimbana | LC645878 |
| | 12C19 | Chongwe | Chalimbana | LC645879 |
| | 13C10 | Chongwe | Chalimbana | LC645880 |
| | 15C11 | Chongwe | Chalimbana | LC645881 |
| | 17C12 | Chongwe | Chalimbana | LC645882 |
| | 45C25 | Chongwe | Chalimbana | LC645883 |
| | 53X65 | Chongwe | Chinkuli | LC645884 |
| | 54C30 | Chongwe | Chinkuli | LC645885 |
| | 55C31 | Chongwe | Chinkuli | LC645886 |
| | 56X64 | Chongwe | Chinkuli | LC645887 |
| | 59C34 | Chongwe | Chinkuli | LC645888 |
| | 60C35 | Chongwe | Chinkuli | LC645889 |
| | 100C69 | Chongwe | Chinkuli | LC645890 |
| | 104X48 | Chongwe | Chinkuli | LC645891 |
| | 105X49 | Chongwe | Chinkuli | LC645892 |
| | 116X67 | Chongwe | Chinkuli | LC645893 |
| | 117X57 | Chongwe | Chinkuli | LC645894 |
| | 119X58 | Chongwe | Chinkuli | LC645895 |
| | 58C33 | Chongwe | Chinkuli | LC645896 |
| | 65C40 | Chongwe | Chinkuli | LC645897 |
| | 101C70 | Chongwe | Chinkuli | LC645898 |
| | 107X50 | Chongwe | Chinkuli | LC645899 |
| | 108X51 | Chongwe | Chinkuli | LC645900 |
| | 109X52 | Chongwe | Chinkuli | LC645901 |
| | 110X53 | Chongwe | Chinkuli | LC645902 |
| | 116X56 | Chongwe | Chinkuli | LC645903 |
| | 122X59 | Chongwe | Chinkuli | LC645904 |
| | 56C32 | Chongwe | Lwimba | LC645905 |
| | 62C37 | Chongwe | Lwimba | LC645906 |
| | 63C38 | Chongwe | Lwimba | LC645907 |
| | 64C39 | Chongwe | Lwimba | LC645908 |
| | 66X19 | Chongwe | Lwimba | LC645909 |
| | 51C28 | Chongwe | Lwimba | LC645910 |
| | 58C29 | Chongwe | Lwimba | LC645911 |
| | 61C36 | Chongwe | Lwimba | LC645912 |
| | 66C41 | Chongwe | Lwimba | LC645913 |
| | 67X20 | Chongwe | Lwimba | LC645914 |
| | 68C43 | Chongwe | Lwimba | LC645915 |
| | 69C44 | Chongwe | Lwimba | LC645917 |
| | 70C45 | Chongwe | Lwimba | LC645918 |
| | 67C42 | Chongwe | Lwimba | LC645919 |
| | 71X21 | Chongwe | Palabana | LC645920 |
| | 71C46 | Chongwe | Palabana | LC645921 |
| | 72C55 | Chongwe | Palabana | LC645922 |
| | 73X22 | Chongwe | Palabana | LC645923 |

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|--|--------|----------|------------------|----------|
| | 72C47 | Chongwe | Palabana | LC645924 |
| | 77C50 | Chongwe | Palabana | LC645925 |
| | 74C49 | Chongwe | Palabana | LC645926 |
| | 79C52 | Chongwe | Chongwe Central | LC645927 |
| | 82C53 | Chongwe | Chongwe Central | LC645928 |
| | 86C54 | Chongwe | Chongwe Central | LC645929 |
| | 87C56 | Chongwe | Chongwe Central | LC645930 |
| | 91C60 | Chongwe | Chongwe Central | LC645931 |
| | 92C61 | Chongwe | Chongwe Central | LC645932 |
| | 94X23 | Chongwe | Chongwe Central | LC645933 |
| | 97C66 | Chongwe | Chongwe Central | LC645934 |
| | 98C67 | Chongwe | Chongwe Central | LC645935 |
| | 99C68 | Chongwe | Chongwe Central | LC645936 |
| | 78C51 | Chongwe | Chongwe Central | LC645937 |
| | 88C57 | Chongwe | Chongwe Central | LC645938 |
| | 89C58 | Chongwe | Chongwe Central | LC645939 |
| | 90C59 | Chongwe | Chongwe Central | LC645940 |
| | 94C63 | Chongwe | Chongwe Central | LC645941 |
| | 1BA70 | Chisamba | Muswishi | LC645942 |
| | 2BA71 | Chisamba | Muswishi | LC645943 |
| | 3BA72 | Chisamba | Muswishi | LC645944 |
| | 4BA73 | Chisamba | Muswishi | LC645945 |
| | 5BA74 | Chisamba | Muswishi | LC645946 |
| | 6BA75 | Chisamba | Muswishi | LC645947 |
| | 7BA76 | Chisamba | Muswishi | LC645948 |
| | 8BA77 | Chisamba | Muswishi | LC645949 |
| | 09BA78 | Chisamba | Muswishi | LC645950 |
| | 10BA79 | Chisamba | Muswishi | LC645951 |
| | 11BA80 | Chisamba | Muswishi | LC645952 |
| | 12BA81 | Chisamba | Muswishi | LC645953 |
| | 13BA82 | Chisamba | Chisamba Central | LC645954 |
| | 14BA83 | Chisamba | Chisamba Central | LC645955 |
| | 15BA84 | Chisamba | Chisamba Central | LC645956 |
| | 16BA85 | Chisamba | Chisamba Central | LC645957 |
| | 17BA86 | Chisamba | Chisamba Central | LC645958 |
| | 18BA87 | Chisamba | Chisamba Central | LC645959 |
| | 19BA88 | Chisamba | Chisamba Central | LC645960 |
| | 20BA89 | Chisamba | Chisamba Central | LC645961 |
| | 21BA90 | Chisamba | Chisamba Central | LC645962 |
| | 22BA91 | Chisamba | Chisamba Central | LC645963 |
| | 23BA92 | Chisamba | Chisamba Central | LC645964 |
| | 24BA93 | Chisamba | Chisamba Central | LC645965 |
| | 25BA94 | Chisamba | Chisamba Central | LC645966 |
| | 26BA95 | Chisamba | Chisamba Central | LC645967 |
| | 27BA96 | Chisamba | Chisamba Central | LC645968 |

